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# REPORT OF THE SURVEY OF THE PUBLIC SCHOOLS OF PHILADELPHIA

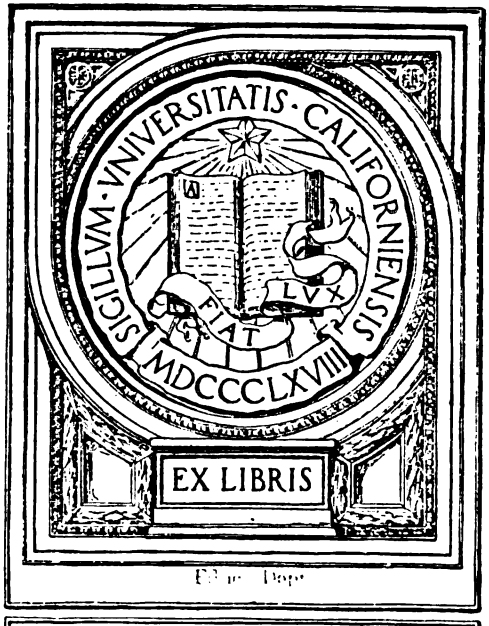
BY

## THE PENNSYLVANIA STATE DEPARTMENT OF PUBLIC INSTRUCTION

*In Four Books*
*Book III*

Published by
THE PUBLIC EDUCATION AND CHILD LABOR ASSOCIATION OF PENNSYLVANIA
1720 Chestnut Street, Philadelphia
Franklin N. Brewer, President
Bruce M. Watson, Managing Director

1922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# Report of the Survey of The Public Schools of Philadelphia

BY

The Pennsylvania
State Department of Public
Instruction

## Book III

Types of Schools
Teachers
Vocational Education

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THE PUBLIC EDUCATION AND CHILD LABOR ASSOCIATION
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# Book III

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# PART I

## CHAPTER I

### KINDERGARTEN

**Growth and Status.** The establishment of the kindergarten as a part of the public school system of Philadelphia dates from 1887, at which time 30 kindergartens were transferred from the Sub-Primary Society to the Philadelphia Board of Education. For the term ending June 30, 1920, this number had increased to 270, as shown by the statistical report of the Superintendent of Schools. This report also gives 3845 as the total number of children enrolled in the kindergartens, while the number enrolled in the first grade is placed at 20,904. This difference indicates a lack of interest on the part of the general public and school officials toward the training of the child of pre-school age. Even the present facilities are not fully used, as 194 of the present kindergartens have only half-day sessions. There should be at least one kindergarten in every primary school in Philadelphia. In the country as a whole at the present time there is a marked increase in favor of kindergartens maintained by public funds.

**Buildings and Equipment.** While the details of buildings and equipment will be found in other parts of this survey, it is deemed advisable to touch briefly upon certain matters pertaining to buildings and equipment as they relate specifically to the kindergarten problem.

**Kindergarten Rooms.** In the Philadelphia schools the kindergarten rooms are of three kinds. In the first type, found in the new buildings, the rooms are large and well lighted, with ample closet space for supplies. These should be so placed that the children may be taught to take care, to some extent, of supplies and incompleted work. Frequently, however, the shelves in the closets are so arranged as to be practically inaccessible to the children.

The second is found in those buildings which, when originally planned, provided for a kindergarten room in the basement. These rooms also have toilets, coat rooms, and fairly adequate supply rooms.

The third type of room is found in the older buildings. In such buildings the kindergartens have been placed for the most part in rooms that were least desirable for other purposes. Sometimes such rooms are found in the basement, and sometimes upon the first floor. For the most part, these rooms have inadequate lighting, ventilation,

washing, drinking and toilet facilities. In some instances there are no coat rooms and wraps are hung in the classrooms.

Notwithstanding such obstacles many teachers try to make the rooms attractive. Pictures of fine type are introduced, but are frequently uninteresting to children and are not properly arranged. Too many pictures are hung. Blackboards are many times over-decorated with teachers' drawings, showing that children do not use them enough. In many places the walls are discolored and dirty. Better cleaning, repairing, and coöperation with art supervision is needed.

The tendency in planning rooms for children of kindergarten age is toward extreme simplicity. As health is of chief importance, the rooms should be large, well ventilated, sunny, and simply furnished with very few decorations and no hangings. The walls and ceilings should be hard so that they may be periodically disinfected and the woodwork painted. It ought to be possible to change pictures and illustrative materials and to have a place to store them. If rugs are used, small rugs are preferable to large ones as they can be rolled up and put away each day. When window curtains are used they should be washed frequently. It is imperative that the floors be perfectly joined and thoroughly cleaned, as young children are very susceptible to germ diseases.

**The Coat Rooms.** Out of a group of 72 schools visited, 30 have coat rooms apart from the kindergarten and 16 have no coat rooms. Twenty-four have coat rooms connected with or near the kindergarten rooms. In some schools there are inadequate substitutes for coat rooms without ventilation and partitioned off from the classroom. Many of these rooms are dark, dirty, and damp.

**Toilets.** In the old buildings the toilets are unsatisfactory. In a group of 86 schools 43 toilets are outside the buildings, 21 are in the basement a long distance from the kindergarten rooms, and 22 are near. The kindergarten children in some places, therefore, use toilets in conjunction with older children from the first to the eighth grades. This raises the question of supervision of children in going to the toilets. Of 75 schools visited 36 have no supervision, 22 partial, and 17 complete supervision. In the old schools the condition of the plumbing is often poor. Of 76 schools visited 35 had poor plumbing, 31 good, and 10 fair.

In the outdoor toilets in some cases the wooden seats of adult type are rotting, and frequently the seats and floors are damp and wet. The outhouses are not properly disinfected. Out of 79 schools, 53 have toilets with adult-type seats and 23 have seats of a child-type; from 3 there is no report. The basement toilets are poorly ventilated. Of 78 schools, 41 toilets are poor, 17 fair, and 20 are satisfactory.

**Lavatories.** Wherever the kindergartens are included in the construction of the building there are connecting lavatories; otherwise lavatories are generally inaccessible. Of 72 schools, 15 have no lavatories, 7 are located in the yard under the hydrants, 40 are in the halls or the general toilet, 10 are connected with the kindergarten. In one kindergarten the lavatory was in the basement of the adjacent building. With these conditions it is difficult to start the right sanitary habits, such as washing the hands after use of material, before and after eating, and after use of the toilet.

**Drinking Water.** In the majority of kindergartens the only way to obtain a drink of water is from the sink in the hall where the faucet is difficult for little children to reach and where there are no drinking cups. Water can also be obtained from the hydrants and fountains in the yards. As the children have no individual drinking cups they drink direct from the faucets. A few thoughtful teachers bring drinking water into the rooms. Of 74 schools visited, 40 have drinking water in the yard, 17 in the hall, 10 in the basement, and 7 in the kindergarten room. Of 71 schools, 50 have sinks or fountains unadapted for kindergarten children, 20 satisfactory, and in one the water is not available for the kindergarten children.

**Cleaning.** The age of many school buildings in Philadelphia makes necessary extreme care in cleaning. Some schools have careful service so that even the basement rooms are kept as clean as the method employed and the type of room allow. The floors are clean and the children are not endangered while working on the floor. In other schools the rooms are not mopped or scrubbed enough and are often swept with windows closed. Of 86 schools, 60 were swept daily but not mopped, 15 mopped or scrubbed once a week or more frequently, and swept daily, and of 11 there is no record. The results of the cleaning are poor in 66 and fair in 20 schools. This means that although the cleaning service is supplied, the results in the majority of cases are ineffective from the viewpoint of the kindergarten teacher.

**Furniture.** In most kindergartens there is sufficient furniture but in many cases it is not up to modern standards. The chairs are largely of the old type. Tables are long and narrow with tops divided into inch spaces. There is a lack of small tables for groups of two or four children. Some teachers insist on two or three different sizes of chairs so that the children may be seated approximately according to height. In many kindergartens only two sizes of chairs are found and in some only one size. Very little effort is made to adapt the height of the chair to the height of the table. New chairs are being supplied of the old type. Most teachers seat the children so that they do not

face the light. Of 83 schools visited, 66 have two sizes of chairs, 15 have one size, and 2 have three sizes. Three different sizes is the standard. Nearly all kindergartens are supplied with pianos.

**Supply Room.** In the kindergartens of the first-class the cupboards and closets are ample in size for the type of material employed. There is also sufficient space should a newer type of material be introduced. Generally in the kindergartens of the third class there is not enough room for the supplies at present in use. Of 88 schools visited, 55 have plenty of supply place and 33 have not. The accessibility to the supplies for the children is an important matter. Children should be able to select and put away materials. With this arrangement the teacher can more readily train the children in habits of self-reliance, orderliness and purposeful selection of materials. Of 88 schools visited, 45 have accessible supply closets and 43 have inaccessible supply closets.

**Outdoor Work.** One of the noticeable features of the elementary schools in Philadelphia is the inadequacy of the provisions for outdoor play. In some schools the playground is away from the building and in others there are no playgrounds. No apparatus is provided for kindergarten children. A number of kindergarten teachers take their classes to the yards twice during the session for thirty minutes of organized games. For the most part, there is no evidence of free play in the yard for kindergarten children except in the five-minute recess that follows the game period.

Modern equipment for the kindergarten includes slides, swings, seesaws, climbing bars, and ropes. Such apparatus must be carefully planned for the needs of the children of this age. There are also building materials and tools for outdoor work. Where playgrounds cannot be secured, semi-open-air rooms built on the roof of the school building are made practicable for outdoor work or play.

Almost every kindergarten teacher in Philadelphia has attempted to develop a love of nature in the children by making the greatest possible use of such facilities as are at hand. Comparatively few kindergartens have children's gardens, though seed planting in window boxes is common. Of 77 schools visited, 66 have no gardens and 11 have small gardens in the school yard. Another approach to nature is by means of excursions. The children go to the parks and sometimes to the country to gather flowers and to study plants and trees. The excursions are also devoted to visiting the Zoo, the industries of the neighborhood, and the markets and shops.

Of 76 schools visited, 70 have excursions. Of these 70 kindergartens, 20 go on excursions from once to twice a month during the spring and fall, 12 go on excursions once or twice a week during the same season.

Excursions prove valuable as an educational objective and as a health measure.

**Medical and Nursing Care.** Of 75 schools inspected the number of medical visits ranged from daily calls to twice a year. The nursing care in the schools inspected is considered satisfactory by the teachers. Yet in the reports of the 235 kindergartens, some teachers state that they never see a nurse. This is accounted for by the practice of the Bureau of Health (1919) which estimates the school nurse service as only 80 per cent of the elementary school population. Of 75 schools visited, 19 reported daily calls, 23 three times a week, 7 twice a week, 4 when asked, 22 uncertain.

In every kindergarten the teacher should be capable of making a daily health inspection of the children to determine their fitness for school attendance. This would certainly tend to reduce contagious diseases. Training school courses are being broadened to include the essentials of school health work so that the teachers of little children may coöperate more effectively with the Bureau of Health.

**The Curriculum.** The curriculum, or course of study, is based upon the kindergarten theories of Miss Susan Blow. This is modified to some extent to meet the needs of the children, especially those of foreign parentage.

In answer to the question, "Do you plan your own program?" the following were among the replies received:

"I plan my own program with help from the course of study."

"Our course is the modified Blow program."

"We have a plan which we fill in according to the development of our pupils."

"I endeavor to use free methods and yet not ignore the existing system."

Many teachers think of the course of study as a flexible one because it is possible to change it in minor points.

A change is needed in the handwork. The children should make large objects to use in real and active play experiences. There should be more representative and dramatic play arising from the spontaneous interest of the children. The songs should develop soft tones and fine articulation. Often singing is coarse and rough when it might be sweet and beautiful. Attention to the speaking voice of teachers and children would be a great help in singing. Singing and speaking should reinforce each other.

The instinctive efforts of children to express feeling and ideas with drawing material is not sufficiently encouraged.

Provision should be made in the curriculum for the introduction of additional play and work exercises adapted not only to age but to individual needs. The conditions, materials, and activities most favorable to the growth of the children at this stage should be the guiding factors in curriculum making.

Each daily session is divided into short periods of from fifteen to thirty minutes duration. Very often there are two thirty-minute work periods in a half-day program. In a few programs there are work periods of fifty minutes, but in general there are no long ones. A longer work hour is needed for constructive work or representative play when initiated and self-directed by the children.

**Methods of Instruction.** The most common procedure is to conduct the various activities such as games, rhythms, story telling, oral language exercises in one large group under the direct control of the teacher. For block building and construction work the children are divided into three groups, each division working at a different occupation. The work in these groups is graded according to the progress of the pupils and is directed by the teacher. For little children they are orderly and responsive.

Sometimes the children are allowed to make their own plans and carry them out in small groups of their own choice. Here most of the teachers need expert guidance in encouraging self-initiated problems.

One of the greatest problems confronting the kindergarten is the child of foreign parentage. Overcoming the inability to speak English is an important problem. Different nationalities increase the difficulty for modifying the curriculum to the needs of the children. Polish, German, Armenian, Italian, Roumanian, Persian, Greek, Irish, and Negro children in one class bring problems of race antagonisms and social differences to the teachers for Americanization. Health conditions in the home and malnutrition call for great skill in the coöperation of the home and the kindergarten.

Further difficulties in teaching are felt by those who adhere faithfully to the official program in the use of "gifts," "circle talks," and nature study. Those who modify the program are retarded by the lack of new materials, the adjustment of old materials to the new ideas, the struggle of combining freedom with order and the management of a class in three groups with uniformity in each group. Those who make out a program usually find it hard to plan situations in which children are free to be intellectually active.

There is generally plenty of material of the kind prescribed by the course of study. Some essential materials and tools, such as scissors, crayons, construction and drawing paper, are supplied. Other mate-

rials, such as wood, cloth, clay, sand, and paints, are either not supplied or inadequately supplied.

Teachers who see that first-hand contact with a variety of materials is needed, frequently furnish a considerable amount of such material rather than suffer the handicap caused by the lack of supplies.

It is believed that there should be a revision of the order list worked out by the coöperation of the director and the teachers. Useless material should be discarded and a better type supplied in sufficient quantity to meet the needs of a more scientific type of work.

In one kindergarten the rating of subnormal pupils by intelligence tests is mentioned. The Binet test for intelligence is referred to in another kindergarten. In the other schools teachers judge their pupils in terms of advancement, and progress is marked by skill in handwork or by memory of songs, stories, and poems. A large number of teachers carefully observe the children's daily work as a standard for advancement. Only two teachers of 235 report that they look for ability to work with independence and originality.

Record of children's progress is kept by the majority of the teachers. Out of 200 kindergartens 94 have no records. The others employ several methods. The chief one is called the "group record." "Books of hand work and collections of sewing and weaving" are considered a means for measuring progress.

Promotions are often a source of annoyance to the kindergarten and first grade teacher. The official standard for promotion is age. Children are promoted in February and June. In February they are eligible to the first grade if they will be six before June 30. In June they are eligible if six years old before February 1. This means that children of five and one-half years can be promoted to the first grade. Of 235 kindergartens, 66 thought the present plan of promotion satisfactory, 31 only partially so, 105 condemned it, and 33 did not report. In the minds of a number of teachers this plan of promotion is satisfactory only because it is a regulation of the Board of Public Education. This system often floods the first grade with backward children and those who cannot speak English. It also results in keeping back some capable children and in sending many slow children into situations for which they are not prepared.

The average attendance in 105 kindergartens is 32. There are no assistants to the kindergarten. This number is within the control of one teacher. Every child of pre-school age is entitled to at least one year of training in kindergarten. Effort should be made to promote children on the basis of intelligence and maturity.

**The Teacher and Her Training.** A large percentage of the teachers are pleasant in manner, kindly toward the children, earnest, and enthusi-

astic. Only a few use repressive and dictatorial methods. The singing voices are not always sweet and the speaking voices show lack of training.

The normal training of the teachers is almost uniform. Of 249 teachers, 221 are graduates from the Philadelphia Girls' Normal School, and 28 from other schools. Of college graduates there are 28, and 10 have done graduate work. Of this group 78 have taught in the Philadelphia schools over 15 years, 33 have taught over 25 years, 6 have taught over 30 years, and 4 have taught over 35 years. This seems to show that teachers of other normal schools with different training should be encouraged to teach in Philadelphia kindergartens. The introduction of outside teachers might bring about an interchange of ideas that would prove both stimulating and beneficial.

The professional interest and cultural aspirations of the kindergarten teachers are noteworthy. Of 229 teachers reporting, 169 have been engaged in professional study since teaching, and during the past year 106 have studied. Until this year the courses selected have been largely music, story telling, dancing, games, and other kindergarten subjects and methods. A few have taken courses in psychology, child study, and sociology. This year the courses have been chiefly music, English, some psychology, and the "project method." Several have studied foreign languages for the purpose of helping foreign children.

The majority of teachers report that the most valuable sources of help are the teachers' meetings and visiting other kindergartens.

Low salaries have in the past forced many kindergarten teachers to add to their incomes by undertaking other occupations. Only recently has the salary schedule been raised, and such increase no doubt will have a beneficial effect upon the morale of the group.

In spite of their meager salaries the teachers have been contributing to their kindergartens an average of $11.32 per year for each teacher. This is a conservative estimate, as many of the teachers have kept no accounts of their expenditures. Some teachers are spending as high as $35.00 a year and more for festivals, parties, toys, educational material, and picture books.

**Relation of Kindergarten to the First Grade.** Statements of teachers, examination of the elementary school curriculum, observations of classes, all alike show that the work of the first grade is not built definitely upon that of the kindergarten, neither is it based upon the needs of the six-year-old child. Many first grade teachers find points to commend in the kindergarten-trained child, while others condemn the training in part. In a questionnaire on how kindergarten children compare with non-kindergarten children, 283 first grade teachers replying, 193 agree that kindergarten children entering the first grade compare favorably with non-kindergarten children, 70 disagree, and

20 give no answer. It would be expected that the greater the correlation in course of study the more favorable would be the comparison.

To the question whether the first grade curriculum is built on the kindergarten, of the 283 first grade teachers replying, 22 answered "yes," 184 "no," 60 "partly," and 17 give no account.

Of 283 grade teachers 144 believe that there should be continuity of subject matter in the course of study of the first grade; 13 agree providing the classes are smaller; 16 agree providing that kindergarten training is compulsory; 7 agree providing the first grade has kindergarten activities and less formality; 8 agree providing kindergarten is the basis of first grade work; 4 agree providing the first four grades are changed; 9 suspend their judgment depending upon the changes offered; 67 do not believe in continuity of subject matter; and 13 give no answer.

Of the 283 teachers, 219 agree that the kindergarten training develops the child mentally, morally, and physically; that the child in the kindergarten receives training in school habits, discipline, and routine; and that the kindergarten is of special benefit to the foreign child. He is trained in the fundamental conceptions and basic principles of nature study, oral English, handwork, stories, games, songs, number, sense training, dramatics, art, civics, and organized play. It is also stated that kindergarten children are more original, expressive, receptive, self-reliant, attentive and alert; that they receive a training in muscular control and coördination, cleanliness, punctuality, and orderliness; that they are able to work in groups and are more considerate, sympathetic, and well-mannered. Of the 283 first grade teachers, only 6 see no advantage in kindergarten training and 18 do not report; 87 see no disadvantages in kindergarten training, and 24 give no report.

The majority state the following disadvantages: Kindergarten children are talkative, too playful, noisy, too free, restless, difficult to adjust to the first grade restrictions, bored because of the repetition of kindergarten work in the first grade, require individual attention, wish to choose tasks they prefer instead of following the prescribed program, wish to move about the room and do not like to remain in seats, speak without raising hand, wish work to be presented in play spirit, are self-assertive and inattentive, lack self-control, interfere with a class procedure, are disobedient and think of school as a play room.

**Supervision.** The amount of supervision of the kindergarten is too limited. Very few teachers comment on this insufficiency but there is evidence to show that the quality of the work could be improved by more frequent visits, conferences and teachers' meetings. The teachers are intellectually eager for help and desirous of moving forward in the right direction. The school room procedure should be improved and it

is for this purpose that supervision exists. Under the present plan this can not be accomplished. Two solutions of the problem are offered. One is to combine the supervision of the kindergarten with that of the first grades, giving the director an adequate number of assistants. The other is to provide a supervisor for the first and second grades of the schools who will be expected to coöperate intelligently and effectively with the director of the kindergarten for mutual understanding of the two fields, the details of the work to be carried out by assistant supervisors who have had training in both kindergarten and primary work. On the part of the teachers the adjustment of thought and practice would necessarily be gradual.

## RECOMMENDATIONS

1. It is recommended that a policy be adopted by the Board of Education to provide adequate kindergarten facilities for all children of kindergarten age, and that steps be taken to increase the present kindergarten enrollment to a figure more nearly commensurate with the present first grade enrollment.

2. Because of the age of kindergarten children and in order to lay a foundation for proper health habits, it is recommended that every kindergarten be provided with toilet and washing facilities for the exclusive use of the children therein.

3. It is recommended that the curriculum and methods of instruction be modified to adhere less rigidly to the original Froebelian plan and to include the results of recent successful experimentation with children of kindergarten age.

4. It is recommended that definite steps be taken to provide for a closer correlation of the work of the kindergarten and first grade. To this purpose it is necessary that in the training of kindergarten teachers provision be made in the normal school for a course of study which will definitely recognize the kindergarten-primary problem as one and the same.

5. It is recommended that in the formulating of a policy which comprehends these recommendations that it be recognized as of the greatest importance that properly trained supervisors are absolutely necessary.

# CHAPTER II

## SPECIAL CLASSES

**Development.*** A special class for truant and incorrigible boys was started in Philadelphia as early as 1898. By 1910 there were 23 of these disciplinary classes with 458 boys enrolled. In 1901 the first class for backward pupils was started. By November, 1909, there were 25 classes of this type with 380 boys and 370 girls enrolled.

New types of classes followed—nutritional (1910), for anemic and pretuberculous children; English (1910), for recent immigrants or other non-English speaking children; orthopedic (1913), for cripples; and more recently classes for the partially blind and one class for the partially deaf. The growth of these classes is shown in Table 1.

TABLE 1.—STATISTICS OF SPECIAL CLASSES IN PHILADELPHIA, NUMBER OF CLASSES, ETC., IN YEARS 1909–21

| | Year Organized | Report for Year Ending | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 |
| Orthogenic (Backward) | 1901 | 25 | 34 | 45 | 56 | 87 | 91.5 | 99.6 | 108 | 86 | 93 | 97 | 103 | 104 |
| Orthogenic (Disciplinary) | 1898 | 23 | 21 | 30 | 30 | | | | | 30 | 29 | 27 | 31 | 32 |
| Orthopedic | 1913 | .. | 0 | 0 | 0 | 1 | 2 | 6 | 7 | 8 | 8 | 9 | 9 | 10 |
| Nutrition (Malnourished) | 1910 | .. | 0 | 1 | 3 | 2 | 7 | 7 | 8 | 8 | 7 | 7 | 8 | 8 |
| Nutrition (Tuberculous) | 1910 | .. | 0 | 1 | 1 | 1 | 1 | 3 | 3 | 4 | 5 | 5 | 5 | 5 |
| Conservation of Hearing | 1920 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Conservation of Vision | 1919 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 3 |
| English | 1910 | .. | 0 | 1 | 0 | 0 | 6.5 | 8.4 | 5 | 4 | 4 | 2 | 1 | 3 |
| Total number classes | .... | 48 | 55 | 78 | 90 | 91 | 108 | 124 | 131 | 140 | 146 | 147 | 159 | 166 |
| Number belonging | .... | 364 | 818 | 1445 | 1759 | 1848 | 2245 | 2517 | 2534 | 2752 | 2727 | 2868 | 3035 | 3431 |

These classes were organized without any very definite plan as to number or distribution. There was little expert supervision. The aims of the work were not clearly defined. Agencies for determining the number who should be in such classes were not developed. As vacant rooms were available and principals were favorable to the plan, a new special class would be formed. Some were in groups but usually they were formed singly. The typical class of five to ten years ago was a heterogeneous group of about twenty pupils made up of both sexes, of all ages from eight to sixteen, pupils with all degrees and kinds of mental handicap, and many with physical defects. The feeble-minded, restoration cases, disciplinary cases, and often other types would be found in a single class.

Teachers were expected to do individual teaching but were given very little in the way of material or equipment different from that found

* See Addendum.

in the ordinary elementary grade room. These classes were intended to give remedial instruction and the term "orthogenic" describes their avowed purpose. The extent to which the handicaps of these pupils were not remediable was more or less ignored. The main function of such a class was to relieve other classes in the school of the burden of these handicapped children.

More recently there has been a marked improvement in these special classes in Philadelphia. Their number has increased from 56 in 1910 to 166 in 1921. There are more types of classes. Single classes have been concentrated into schools. Some beginnings toward special equipment have been made. A supervisor of special education has been appointed. The prospect of a favorable development of these classes is good.

The recommendations made in connection with special classes in successive reports of the Superintendent of Schools show a good understanding of most of the problems involved in the organization and supervision of these classes. In spite of these recommendations, however, much has been left undone in the way of carrying out these suggestions. In the Superintendent's report for 1911 a recommendation was made for "providing an expert in charge of special classes whose whole time should be devoted to planning and coördinating the work of these classes and in assisting and directing the teachers." No action in this direction was taken until nearly ten years later, when the number of classes had doubled. Many other timely suggestions have been lost sight of because of lack of favorable action by the Board of Education. This inaction appears to have been due to lack of interest or lack of school funds rather than to any direct antagonism to the program suggested. Suggestions in regard to the inauguration of new types of classes have been carried out somewhat tardily. Many of the recommendations in the annual reports of the Superintendent of Schools have never been carried out at all.

**Present Distribution of Special Classes.** At the present time (January, 1921) there are eight types of special classes in Philadelphia, distributed as shown in Table 2, in the eight school districts.

Of the 104 orthogenic backward classes, 35 are single classes in buildings with regular elementary grades. There are 14 units of two or three classes each, including 35 classes in all. The other 34 classes are in concentrated schools or units of more than three classes. The largest unit is made up of 10 classes.

Of the 32 orthogenic disciplinary classes, 15 are in the Lee Special School, and 9 are in concentrated units of more than 3 classes. The remaining 8 are by themselves.

TABLE 2.—DISTRIBUTION OF SPECIAL CLASSES BY SCHOOL DISTRICT. JANUARY 1, 1921*

| | Districts. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total. |
| 1. Orthogenic (Backward) | 13 | 14 | 8 | 8 | 16 | 23 | 12 | 10 | 104 |
| 2. Orthogenic (Disciplinary) | 3 | 5 | 1 | 4 | 0 | 16 | 1 | 2 | 32 |
| 3. Orthopedic | 3 | 1 | 0 | 0 | 2 | 3 | 0 | 1 | 10 |
| 4. Nutrition (Malnourished) | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 0 | 8 |
| 5. Nutrition (Tuberculosis) | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 5 |
| 6. Conservation of Vision | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 7. Conservation of Hearing | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 8. English | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| | 20 | 23 | 10 | 13 | 24 | 47 | 16 | 13 | 166 |

TABLE 3.—ENROLLMENT AND ATTENDANCE OF SPECIAL CLASSES JANUARY 1, 1921

| | Number of Classes. | Average Belonging. | Average Attendance per Class. |
|---|---|---|---|
| 1. Orthogenic (Backward) | 104 | 2,154 | 18 |
| 2. Orthogenic (Disciplinary) | 32 | 661 | 17 |
| 3. Orthopedic | 10 | 203 | 18 |
| 4. Nutrition (Malnutrition) | 8 | 181 | 20 |
| 5. Nutrition (Tuberculosis) | 5 | 110 | 19 |
| 6. Conservation of Vision | 3 | 39 | 10 |
| 7. Conservation of Hearing | 1 | 10 | 9 |
| 8. English | 3 | 93 | 28 |
| Total | 166 | 3,451 | 18 |

Of the orthopedic classes, there are two units of 3 classes each, one of 2 classes and the other 2 classes are by themselves. The 3 conservation of vision (sight-saving) classes form a single unit.

There are no classes for the following types of exceptional children for whom special classes have been organized in some cities:

1. The blind. Blind children are sent to the schools for the blind. At the Pennsylvania Institution for the Blind at Overbrook there were 75 pupils from Philadelphia in 1919–20. The 1920 school census shows that 21 blind children of school age are not attending school anywhere.
2. The deaf. Two hundred and three deaf children from Philadelphia were sent to the Pennsylvania Institution for the Deaf and Dumb at Mt. Airy in 1919–20. There are 38 deaf children from Philadelphia at the Home for the Training in Speech of Deaf Children before they are of School Age at 2201 Belmont Avenue, Philadelphia. The 1920 school census shows that 28 deaf children of school age are not attending school anywhere.
3. Cases of defective speech.

* *Vid.* Table 6, p. 44, for figures for January 1, 1922.

4. Cardiac cases.
5. Nervous, psychopathic, and epileptic pupils.
6. Exceptionally bright children.
7. Cases of incorrigibility, etc., due to improper home conditions, for whom a parental home is needed. (In 1915 a farm of 93 acres at Byberry was purchased as a site for such a school.)

The enrollment in the special classes for January 1, 1921, is shown in Table 3.

**Types of Special Classes.—For Backward and Mentally Defective Pupils.** More than half the special classes in Philadelphia belong in the group designated as "orthogenic backward." These are intended to meet the needs of backward and mentally defective pupils. Practically all the pupils in these classes are drawn from the large group of retardates, children who have failed to secure promotion in the regular elementary classes until they are two or three years overage for grade. They range in age from 8 to 16 years, averaging 11½ years. The enrollment shows about three boys to one girl. About one-third of the pupils in these classes are reported as "restoration cases." These are expected to be helped by individual teaching to make up deficiencies in their school work and to be returned to regular classes. The other two-thirds are reported as "hopelessly backward" or "feeble-minded." In spite of this classification in reporting the enrollment of pupils, they are in most cases not separated into separate classes and little difference is made in the plan of teaching. All are carried forward as far as they can go in the regular studies of the elementary school curriculum. No matter how low the mental level of a pupil may be, he is expected to try to learn to recognize a few words, to write at least his own name, and to attempt some very elementary formal number work.

**Restoration Classes.** Very few of these orthogenic backward classes are made up entirely of restoration cases. No single special class should be expected to deal with both restoration and non-restoration cases at the same time. A restoration class should be found in each building or school of more than ten rooms. Classes for the non-restoration cases should be grouped together but restoration classes should not be concentrated. If more than two are needed in any building this fact would signify that the pupils were not properly classified in the regular grades. Some pupils should attend the restoration class for only one or two periods per day. Others should attend on full time for a term or two. No pupil who is very unlikely to gain promotion by means of this individual teaching should be retained. The restoration class also affords an opportunity for pupils about to receive an extra promotion to make up their deficiencies in the work omitted. This is

the place for non-English speaking pupils. It is better for them to associate with English-speaking pupils rather than to be grouped with those that can not speak English.

In other words, the restoration class is an opportunity to make minor adjustments in grade progress and placement and to compensate for special disabilities in pupils of uneven progress. It is needed in the junior and senior high schools as well as in the elementary grades. The teacher is the principal factor in its success. Practically no special equipment is required. It fills a need which will always have to be met no matter how well organized the elementary course of study becomes. The word "orthogenic" is more properly applied to these restoration classes and to the disciplinary classes than to the classes for the backward and mentally defective pupils.

**Orthogenic Backward Classes.** The backward and mentally defective pupils who can not be classed as restoration cases make up about two-thirds of the present enrollment of the orthogenic classes These non-restoration cases fall into three classes: first, the borderline and high grade feeble-minded pupils (morons), with a relatively small number of other retardates of low intelligence level, who can profit by the instruction in these classes but cannot be expected to be restored to the regular classes; second, the feeble-minded of low grade, the imbeciles and idiots, who are trainable rather than educable; and, third, a very large group of mentally inferior pupils referred to as the "normal dull," the "motor-minded," the "congenitally illiterate," etc. This third group is so numerous in all elementary school classes below the sixth grade and in the present orthogenic backward classes that they constitute a problem in elementary school organization. Classification of pupils in the regular classes into sections of different degrees of ability referred to elsewhere in this report,* may be expected to provide for these pupils in the third group. These pupils are too numerous to be ever adequately cared for in special classes.

Pupils of the first class rightfully belong in these classes for backward pupils who are not restoration cases. This class now forms a majority of the pupils enrolled in orthogenic backward classes and are where they belong.

**Custodial Care for Imbeciles.** Those of the second class, the imbeciles and idiots, do not properly belong in school at all any more than two and three year old normal children. The low-grade feeble-minded child, usually referred to as an "institutional case," is not educable and is trainable in only the simplest tasks. They belong in the care of responsible parents at home or in institutions for the feeble-

* See chapter on Classification according to Ability.

minded. Where these custodial cases cannot be placed in institutions either because of lack of adequate provision by the state for such care, or because of objections on the part of the parents, they should be cared for at home. Where this care is inadequate on account of improper home conditions or because of the fact that both parents are employed outside of the home, it may be desirable for the municipality to provide this care. The problem is analogous to that of the care of infants in day nurseries. In the day nursery a matron with one or more helpers gives care during the day to infants and other children too young to attend school.

If the problem of the care of imbeciles and idiots is forced on the school system either through the demands of public opinion or because it is not undertaken by any other agency, school administrators may arrange for custodial care during school hours. In that case, they should proceed much as they would do if they were made responsible for the care of infants whose parents could not care for them during the day.

As recommended by Mitchell,* these low-grade children, if admitted to school at all, should not be placed under a trained teacher but under a matron, as would be the case in a day nursery. Three of the older moron girls would act as her assistants for periods of a month at a time in rotation with others. These girls would get training in child care and household arts and would be of real assistance to the matron. In this class or group there would be little attempt at teaching in the ordinary sense. No course of study would be planned. Toys and some recreational apparatus (sliding board, giant stride, etc.) would be provided in the yard. There would be some training in self-help and simple tasks incidental to this arrangement.

**Classes for Non-Restoration Types.** Providing restoration classes for those who may be returned to regular classes, and groups of the kind just described for the low-grade feeble-minded pupils, and leaving the problem of the mental inferior who are likely to become socially competent in semi-skilled and unskilled labor to be provided for in regular school classes, we still have left a group usually described as "backward and mentally defective." These are the pupils who properly belong in a backward class. This is primarily a borderline and moron group. A few learn to read and do other school work up to a fourth or even a fifth grade standard. Much of the school work now carried on in these classes is mastered with great effort, often imperfectly, and has little relation to the pupil's later life. The school work of these pupils should be practically the same as that given to the high-grade children in an

* David Mitchell, Schools and Classes for Exceptional Children; Cleveland Education Survey, Cleveland, Ohio, 1916, pp. 105–107.

institution for the feeble-minded. A minimum of formal school work should be included in the course,—reading, penmanship, simple number work, etc. Most of the work should be prevocational, including industrial and household arts. Physical exercises and training in personal hygiene are important.

It will be urged that many of this group belong in institutions for the feeble-minded. Until more nearly adequate provision is made for institutional care, this objection can have little practical bearing on the question of their care and training. Philadelphia has done more in the way of providing special classes for them than other large cities in the state. A large number of this type, however, are not yet found in these orthogenic backward classes. The 1920 school census indicates that 1285 defective children of compulsory school age are not attending school anywhere. Many of these are mentally defective. Among the pupils in the lowest three grades of the elementary schools there are a large number of candidates for these classes whose mental deficiency has not been recognized definitely enough to secure their transfer to these classes.

**Orthogenic Disciplinary Classes.** There are only two orthogenic disciplinary classes for girls, one of these being at the House of Detention. The other 29 classes of this type are each composed of 15 to 20 boys ranging from 10 to 16 years in age, the average being about 13½, or two years older than the average for the orthogenic backward classes. About 80 per cent of these are classed as restoration cases in their school work, but because of disciplinary reasons only about 10 per cent were returned to the regular grades in June, 1920. All but about 5 per cent of the pupils in these classes are overage for grade. There is a close connection between overageness and truancy, and truancy is one of the first steps to delinquency. Another cause of incorrigibility and delinquency is found in inferior home conditions which lead to malnutrition, lack of wholesome interests and recreation, and the formation of undesirable friendships with boys who are already delinquent.

To the extent that disciplinary cases are created by lack of proper school adjustment their number may be reduced considerably. To the extent that home contacts are established by a school visitor and the potential delinquent is dealt with before his case becomes serious the number may be reduced still further.

In this connection there is serious need for medical, psychological, and social studies of all potential delinquents. At present there is no systematic study of these cases. Before being sent to a disciplinary class, each boy suspended from a given school because of persistent truancy or other misconduct should be given a trial in another school.

The principal of the school to which he is transferred should be furnished with a full analysis of his case so that he may be dealt with intelligently and sympathetically. The coöperation of the parents in plans of this kind should be developed through Home and School Associations, parents' meetings, or other community activities centering in the school. The coöperation of Boys' Clubs, Boys' Scout organizations, and other child welfare organizations should be developed. There should be close coöperation with the Bureau of Compulsory Education and the Juvenile Court. Psychopathic cases of all types should be given psychiatric examinations. Generally speaking, the disciplinary case belongs to the mentally inferior group but is neither feeble-minded nor psychopathic.

The close connection between juvenile delinquency and adult crime makes this preventive work with young offenders, and particularly work with the potential delinquent, very important. It is a social problem and its pedagogical aspect is only one of its phases.

The Lee Special School with its 15 classes is one of the best organized of the concentrated units of special classes. If this school had better equipment, including a playground, and if the boys sent to it were more carefully studied as suggested above, it would set a high standard for work of this kind. A similar concentrated school is being organized at the present time. There are two classes of boys and one of girls at the House of Detention.

There is need of a parental school with departments for both boys and girls for the temporary care of potential delinquents whose home conditions are unsatisfactory. Sending children to reform schools where they associate with habitual offenders should be looked upon as a last resort; yet there are many cases which cannot be dealt with properly under present conditions, with lack of home coöperation or negligence and indifference on the part of parents.

The need for disciplinary classes is likely to continue, but it should be the policy of the administrators of the elementary school system to reduce this need to a minimum.

The orthogenic disciplinary classes enroll many pupils whose trouble is primarily that of mental inferiority, rather than any vicious or criminal tendency. A few of the others are mentally superior. In these classes and in the orthogenic backward classes there are many pupils with more or less serious physical defects ranging from defective teeth to constitutional inferiority.

**Orthopedic Classes.** The first orthopedic class was established in 1913. There is no compilation available showing the number of orthopedic cases of school age who ought to be in special classes. One is being made under the direction of the supervisor of special classes, but the results are not yet available.

On January 1, 1921, there were 203 crippled children in ten classes, these classes being located in five schools.

The Board of Education provides the equipment, including special, orthopedic, adjustable seats and desks, wheel chairs, cots, etc., special toilets, and transportation by heated bus between the home and the schools, sending a matron with the children on each bus. Some of the classes have a place by themselves for eating lunch. In one of the schools the only lunch room is used by the orthogenic disciplinary classes and is therefore not available for orthopedic cases. The lunch consists of cocoa or milk at 10.30. At noon, soup, cocoa, peanut butter sandwich, stewed fruit, bread and butter, some meat, etc., are given. Pupils add to this by bringing sandwiches and other food from home. The lunch content varies in different buildings. The children pay five cents apiece when they can do so. Contributions are made from various other sources. The special furniture shows considerable lack of repair.

The pupils get no outdoor recess except in very fine weather. The provision of ramps, facilitating getting in and out of the building, would improve the situation. Considerable freedom is allowed in halls and rooms during recess and intermission. Opportunity for gymnasium work is lacking in most cases.

A considerable amount of handwork is provided. This is not definitely directed toward bringing about physical improvement. There is a lack of the occupational therapy which should be provided. There appears to be too little attention given to this orthopedic aspect of school work which should be developed under the direction of an orthopedic specialist.

According to the 1920 school census, 130 crippled children were not attending school anywhere. As new cases are brought into school, larger groups of classes should be concentrated under a single roof rather than making an increase in the number of centers. With automobile transport the question of traveling additional distance is not serious. Larger groups permit better grading, departmental teaching, special equipment, special medical and surgical attention, and the like.

A few amputation cases are noted in these orthopedic classes. So far as possible these cases should be educated in regular classes, every effort being taken to prevent their feeling that they are in any way "different." What special occupational training these pupils need may well be obtained through regular manual training classes, vocational classes, junior high schools, etc.

The pupils in any one of these classes do not represent a single problem, either from a medical, psychological, or pedagogical standpoint. Of 175 pupils in these classes for 1919–20, 29 were classified as probably feeble-minded and 51 others were not considered to be restora-

tion cases. In his report for 1917 the Director of the Department of Medical Inspection and School Hygiene classified 143 pupils in orthopedic classes as follows:

| | |
|---|---|
| Normal mentality | 86 |
| Backward | 21 |
| Feeble-minded (high grade) | 24 |
| Feeble-minded (low grade) | 12 |

There were 6191 children with orthopedic defects listed in the medical inspector's report for 1920. Although many of these children need not be placed in a special class, better provision should be made to give them special instruction.

**Nutrition Classes (Malnourished).** The first class for malnourished pupils, known as an "open window" class, was established in 1910. On January 1, 1921, there were 8 classes with 181 pupils. How many children there are of this type in the Philadelphia schools is uncertain. The Director of Medical Inspection reports that 6865 were recommended for treatment for malnutrition by the school physicians in 1920.

Reports from numerous other northern communities show that from 24 to 42 per cent of the pupils in the public grade schools are from 7 to 10 per cent or more underweight for their age and height. If we take, for Philadelphia, the low figure of 25 per cent, the total pupils in the grade schools falling into this group is approximately 50,000. A large number of these are undernourished or malnourished.

For these classes are selected undernourished and anemic pupils whose entrance to such classes has been approved by the District Medical Inspectors. Some are transferred on request of parents. If in such a class a pupil gets up to normal weight and remains normal for three months, he is returned to a regular class.

The Board of Education furnishes such extra clothing as sweaters, caps, blankets, and the like. Some of these classes have a few cots; some have none. It is expected that windows will be kept open as wide as is compatible with the comfort of the pupils.

In these classes the food is usually in the form of milk. In some of the classes a noonday meal is provided by private agencies. The parents add one-half pint of milk to this if they can; if they cannot, the child goes without. Some effort is made toward instructing parents in the food needs of these children, not only by the nurses in home visiting, but by the Supervisor of Special Classes addressing groups of mothers.

Here, as in the special schools for the tuberculous, special effort should be made so that these children may get more air. This should be brought about by putting such classes in rooms with large window area, by pivoting windows, and by providing cotton cloth screens for

use in stormy or windy weather so that the teacher will not close the windows to "prevent draft."

More intensive effort should be made to instruct these pupils in practical nutrition and in food values, proper selection of foods, food values versus cost, etc.

The number of these classes should be increased. Centers should be scattered about the city, and made models of nutrition effort and accomplishment. It will not be possible, however, even if it were advisable, to care for all undernourished pupils in this way. Intensive instruction in nutrition for all these pupils should be organized, and efforts of physicians, nurses, and teachers coördinated so as to give these pupils and their parents necessary instruction in regard to nutrition, rest, and sleep. Principals should coöperate to see that such pupils are excused from classes if necessary, so that they may get opportunity for the added rest during the middle of the day which is essential to placing these children back in a normal condition.

**Nutrition Classes (Tuberculous).** The first class for tuberculous children in Philadelphia, known as an "open air" class, was established in 1910, three years after the opening of the first American school of this type in Providence, R. I. On January 1, 1921, there were 110 pupils in five classes, distributed among three buildings. All these pupils have been diagnosed as having tuberculosis. No cases in an infectious condition that could in any way be a menace to others are admitted.

Tuberculous pupils are found in several ways: through the compulsory education bureau, as a result of the request of the family physician for school excuses for absences; through social agencies; through the Visiting Nurse Association; through the school medical inspectors and nurses; and through keeping in touch with children returning from sanatoriums.

Pupils are in these classes continuously from 9 A. M. to 3 P. M.—a six-hour day. Of this time, 2¾ hours to 3¼ hours are devoted to class work, 1½ to 2 hours to rest and recess, 1¼ hours are taken up by meals, and ten minutes, more or less, are used for mild calisthenics.

A breakfast consisting of oatmeal and two cups of milk, or two cups of hot cocoa and crackers, or two slices of hot milk toast is served at 9.45 A. M. At noon pupils receive a dinner of meat, potatoes, peas, beans, etc., two cups of milk, bread and butter. At dismissal time they are given a cup of milk.

This food is paid for wholly by private agencies such as the Philadelphia Health Council, the Junior Red Cross, etc. The children themselves, when they can, bring some contribution.

Extra clothing such as sweaters, stockings, sheepskin boots, blankets, caps, reclining chairs and cots are provided by the Board of Education.

The desks and kitchen equipment are also provided by the Board. The teachers and matron, who also acts as cook, are paid by the Board. Extra underwear is secured from private donations.

Physical examinations preceding admission are made in the same way as all other physical examinations in the public schools. After entrance pupils are followed closely and given repeated physical examinations. When practically normal they are returned to regular classes on the approval of the Medical Supervisor.

Two nurses are assigned to these and the "open window" classes, one employed by the Board of Education, the other by the Philadelphia Health Council. One of these keeps all records, measures and weighs all pupils every month, and weighs new children on admission. She keeps the weight charts, is adviser of the lunch content, and gives health talks in classrooms, trying particularly to get health ideals established for use in the homes. She interviews parents at school and makes some home visits.

The other nurse does the follow-up work in the home, makes necessary investigations, fills in the home investigation, weight, and medical charts of the special record kept of these pupils. She also attempts to get defects corrected, taking children to dispensaries if the family cannot otherwise get proper medical and surgical help.

The type of building and classroom used for these classes is such in several cases that the term "open air class" has been a misnomer. In these cases the window area is too small. For this type of class there should be chosen a room with windows on two or more sides, with one side at least practically all glass. The orientation should be such as to admit direct sunlight during the greater portion of the school day.

The windows should be pivot-hung in order that they may be so adjusted that all the window area will admit fresh air. The usual type of sash window can be opened to admit at most only one-half its area of air. Whatever the type of windows used, teachers should be compelled to keep them all opened. In some classes this was not being done. They should be provided with cotton-cloth covered frames which could be fitted into open window space to prevent undue draft on stormy and windy days. Some types of pivot-hung windows can be so adjusted as to check such drafts, but they must be kept *open*. The teacher must remember that the chief function of these classes is to offer opportunities to these children for fresh air, rest, and food.

Often these rooms are so located as to be both noisy and dirty. It is realized that questions of transportation may make it necessary to locate them in congested parts of the city. Placing them on upper floors, however, will get rid of much of the street and playground dust, and will considerably lessen the amount of noise.

Broken cots and chairs are not promptly repaired. Attention to such details, which may seem of minor importance, means much in leading teachers to feel that they are receiving the appreciation and coöperation of those responsible for the administration of the schools.

For rest purposes, new purchases should be confined to cots rather than to reclining chairs. The chair in vogue contracts the chest and has no offsetting advantages over the cot.

The Board of Education has legal authority (School Code, Section 1512) to provide, and should provide, the food for these children, and no longer permit them to be objects of charity. The physical environment is largely the cause of the ill health of most of these pupils and the community has a distinct responsibility for their care and recovery.

That there may be no confusion regarding the pupils actually admitted there should be created a better understanding among the assistant medical inspectors and supervisors of the type of case admitted to these classes, and all open air classes should be assigned to a special medical supervisor who has special training and experience in tuberculosis.

No adequate survey of the number of tuberculous pupils in the schools has ever been made. The results of the Framingham Survey, the most thorough and authoritative effort to find all the cases of tuberculosis in a community, show that 3 per cent of the grade school pupils may be classified as active or "contact or suspicious cases." Based on the average number belonging in the grade schools this would mean, for the city of Philadelphia, over 6000 such cases. At least one-third of these cases should be in special open air schools, either because of bad or dangerous home conditions, or because of the physical condition of the pupils themselves. The ordinary physical examination made in the schools does not find these cases. Of the certificates for absence of over one month sent the Bureau of Compulsory Education by private physicians, during the first seven months of the present school year nearly 9 per cent showed tuberculosis as the cause of absence. Every pupil showing the combination of underweight and elevated temperature should be given a thorough chest and other examination for tuberculosis, if possible by a specialist in tuberculosis. Such a procedure would disclose many times the 124 now in these classes. Ample special open air classes should be provided for all cases found.

Proper instruction of parents in nutrition and extra feeding of the undernourished will tend to check the development of this disease.

**Results in Nutrition Classes.** Special and very successful efforts are made in both the open air classes for the tuberculous and in the open window classes for the undernourished to secure correction of all physical defects.

There is a considerable average gain in weight, partly due to this correction of defects, partly due to extra food, extra rest, additional fresh air, and improved home hygiene. The home hygiene and the fresh air activities are apparently less successful than the other factors. This is evidenced by the fact that the greatest average gain is fairly high,—1.2 pounds per pupil, in October; considerably higher, 1.6 pounds, in November; and from then on steadily diminishes, except for February, throughout the school year until June, when the average gain per pupil is less than 0.4 pound. The time of the most marked diminution of gain is approximately coincident with the time of closing windows in the homes and is also the time when there is a tendency even while the pupils are in these classes to "prevent draft." Undoubtedly there is much less fresh air in the homes both day and night, and unhygienic conditions are more accentuated from November on than previous to that time.

When we compare the classes for the tuberculous, these classes having much more extra feeding and rest, with the classes for the malnourished, we find that on the average the pupils in the classes for the tuberculous make the better gain; this in spite of their probably greater physical handicap. The amount of fresh air and sunshine available does not favor either group, conditions being very similar. Food and rest, then, seem to be the important factors.

Whether of the malnourished or pretuberculous type, these classes present a problem in health education. The advancement of these pupils in school work should be made secondary to the main purpose of these classes. In the main, the pedagogical problem of these classes is that of the ungraded or one-room school. Teaching is individual or with small groups.

Both the orthopedic classes and these nutrition groups are better cared for in concentrated schools. The need for these nutrition classes is relative and depends upon the program of health education undertaken in the regular schools.

**Sight-Conservation Classes.** A preliminary survey, taken through the school principals, shows at least 300 pupils whose uncorrectable defect of vision is so great as seriously to interfere with their profiting by ordinary classroom instruction. Moreover, such instruction is in many cases a serious injury to that vision which remains to them. Such pupils should immediately be protected and trained.

The first of these sight-conservation classes was formed in 1919. On January 1, 1921, there were 3 of these classes with 39 pupils, all located in the same building. This gives an average number belonging of 13 pupils, with a probable attendance of 11 per teacher.

The enrollment should be reduced to a maximum of 12. Two additional classes are authorized to be placed in another building.

No pupils, except those who have a progressive myopia, are admitted to these classes unless their vision, after correction, is below 20/70. If they have progressive myopia, they are placed in one of the classes and reëxamined every six months. All myopia cases are reëxamined each year at least. The city ophthalmologist has taken great interest in these children and in the organization of classes for them.

The rooms used by these classes are on the third floor. The walls of one are tinted light green, another, buff. The walls of the third are of a dirty, light-absorbing brown. The floors are dark and light-absorbing. The windows are small and not well placed. The window area is only 11 to 14 per cent of the floor area. This is only 55 to 70 per cent of what it should be, even for normal vision.

Artificial lighting is by feeble gas light, which does little, if any, good. The room is equipped with movable adjustable desks. Books printed in large type are used; also soft pencils and paper. The type of instruction is largely oral, manual, and vocational, a twenty-minute period of use of eyes being alternated with twenty minutes oral work or rest.

While there are a gymnasium and a special physical education teacher in the building, these pupils are not getting the help of this special instruction which they need to give them muscular control and confidence. Ample gymnasium facilities and teaching should be furnished to give the special training that these pupils need. It is to be kept constantly in mind that many of them are destined to become blind and they must be trained against that day.

The classrooms provided are ill adapted to work with pupils with poor vision; in fact, they are not suitable for pupils with normal vision. Sight-conservation classes should be provided with the most modern of rooms, particularly as regards lighting. Questions of wall and ceiling tinting, orientation of windows, color and type of shades, kind, condition, and location of blackboards, etc., should be decided on expert advice, and the needed equipment and surroundings should be provided. Accessory lighting should be by electricity, preferably semi-indirect.

**Hearing-Conservation Class.** The first and only class for semi-deaf pupils in Philadelphia was established in 1920. On January 1, 1921, it had an enrollment of 10 pupils. With this type of child the number enrolled might be increased to 12, giving an average daily attendance of about 10.

A recent survey made by the school officials through the principals of schools, indicates that there are over 500 pupils in the schools whose

hearing is so seriously defective that they cannot profit by ordinary classroom instruction. The Medical Inspector's reports for 1920 show 832 pupils with defective hearing. The actual number of such pupils undoubtedly lies somewhere between this figure and 2340—1 per cent of the school enrollment estimated by Mitchell as the probable proportion of such pupils in the average city.* Provision for this type of handicapped child is entirely inadequate.

**English Classes.** These classes have been formed for recent immigrants and for pupils transferred from foreign language parochial schools. They should be abolished. These pupils should not be grouped together but should associate with English-speaking children. They belong temporarily in the restoration classes.

**Concentration of Classes.** The present tendency to concentrate special classes into units of 3 to 12 or 15 classes is desirable and should be continued. Comparing these centers with isolated special classes the following advantages of concentration may be expected to be increasingly in evidence as the policy is continued:

1. Pupils are better graded. Larger classes may be formed without impairing the quality of the work done.
2. Departmental teaching is possible.
3. There is better opportunity for training inexperienced teachers and supervising the work of all teachers. There is also less difficulty in the matter of substitutes.
4. There is more economy in the use of assembly room, gymnasium, shops, and equipment on a full-time basis.
5. There is better opportunity for practice teaching by student teachers in training.
6. Provision for transportation and lunch is more conveniently made. Supervision and expert medical inspection are facilitated.

**Selection of Pupils.—Surveys.** Attempts have been made from time to time to define the need for special class instruction by surveys. In February, 1909, the Bureau of Health, acting in conjunction with the Department of Superintendence, made a survey of the mentally subnormal and disciplinary cases in the schools. There were 442 pupils reported as feeble-minded and something less than 1500 as truant and incorrigible.

A more careful enumeration of backward and mentally defective children was made the following year by the Committee on Backward Children Investigation. The report of this committee was published in conjunction with the report of the Superintendent of Schools for the

* *Op. cit.*, p. 16.

year ending December 31, 1910. The Goddard translation of the 1908 Binet-Simon test seems to have been the basis for classification in all the 72 cases of feeble-mindedness that were found among the 127 children examined. About three-fourths of the special class cases examined were diagnosed as feeble-minded. The survey of this committee was in no sense complete since a third of the schools made no returns to the request of the committee for information, the request being entirely ignored.

The Director of Medical Inspection has made a report on the number and location of cripples of school age. A census of pupils with defective speech has been taken.

Most of these studies have not included those of school age not attending school, though the report of the Bureau of Compulsory Education has reported those excused from school on physicians' certificates. There appear to be no reliable data on which to base an accurate estimate of the number of each type of physically or mentally handicapped children in Philadelphia. The number to be included also depends on the extent to which some of these can be taken care of in regular classes.

**Psychological Examinations.** Little systematic work in psychological examining has been carried on. In 1896, Witmer opened his psychological clinic at the University of Pennsylvania. Many pupils have been examined there. Other psychological examinations have been made by other extra-school agencies. The Director of Medical Inspection has made mental examinations as reported in Table 4.

TABLE 4.—REPORTS OF MENTAL EXAMINATIONS MADE BY THE DIRECTOR OF MEDICAL INSPECTION 1912–1920

| | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 |
|---|---|---|---|---|---|---|---|---|---|
| Normal | .. | 62 | 51 | 27 | 20 | 26 | 29 | 14 | 10 |
| Border line and doubtful | .. | 48 | 94 | 56 | 62 | 56 | 19 | 16 | 30 |
| Feeble-minded (trainable and doubtful social ability) | .. | 40 | 103 | 92 | 99 | 13 | 37 | 50 | 77 |
| Feeble-minded custodial cases | 108 | 75 | 62 | 57 | 48 | 59 | 13 | 5 | 26 |
| Epileptic | 0 | 0 | 6 | 7 | 4 | 1 | 0 | 0 | 0 |
| Neurotic or Dementia Praecox | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 2 | 0 |
| Total number of children examined | 108 | 225 | 316 | 239 | 233 | 163 | 98 | 87 | 143 |

The Board of Education has not provided any agency for this work. Some principals and some special-class teachers on their own initiative have used the Binet-Simon test scale and other mental tests. Many children have been transferred to orthogenic classes on the record of their school work alone.

**Medical Examinations.** Medical inspectors have made physical examinations in many cases and this has been a recognized part of their

school work; but here also definite data are lacking, follow-up work has lagged, and many remediable physical handicaps still remain. Theoretically, pupils are admitted to special classes only after special examination by, and the approval of, the district medical supervisor. If the child is in a district other than that in which the special class is located, the approval of both supervisors is needed. Following this the transfer is approved by the district superintendent. As a matter of fact, children often are transferred to a special class without this careful medical approval. Complaint is made that some medical inspectors do not know the type of case taken in the several kinds of special classes.

There is evident need for careful medical and psychological examinations for all special class pupils. The diagnostic aspect of this work is only a beginning. It cannot be considered thoroughgoing unless it includes follow-up work leading to the removal of handicaps that may yield to treatment. These studies are not only important for the welfare of the pupils examined but these results should point the way to the prevention of many of these conditions (overageness, truancy, malnutrition, etc.) in the future.

**Instruction and Program of Studies.—Pupils not Uniform.** It is conceivable that an orthopedic class might be made up of boys and girls of 8 and 9 years of age, of better than average ability for school work, and all ready to do 3-B work. In that case almost no change in the regular program of studies would have to be made for these pupils. The special problems would be matters of transportation, proper seating, and orthopedic exercises rather than of special instruction in the formal school work. But even the special classes selected because of physical handicap are not so homogeneous as this; much less the classes for the mentally handicapped. Even in the concentrated schools where some grading is possible there are marked differences in school progress, general intelligence, initiative, energy, and the like, among different pupils in any special class.

**Individual Teaching.** "Individual teaching" has been the motto of the special class teacher. Usually this has meant following the regular curriculum of the elementary grades as far and as fast as the pupil's ability made it possible. The type of teaching belonging in a restoration class, where the pupils are soon to be returned to regular grades, predominates in most of the special classes in Philadelphia. Little attempt has been made to follow a different procedure with those who are not restoration cases. Apart from lack of supervision this tendency appears to be due to a number of causes. Teachers have been trained in teaching the "three R's" and in turning to these they find something that is familiar. Teachers are optimistic in regard to their pupils and

wish to give them every chance possible. The parents will make complaint if their child has no reading, whereas they are satisfied with his having a "reader" even if he learns very little. Some teachers appear to share this view.

Special classes should have definite objectives in education and training which take into account the potential mental and physical development of their pupils, both in regard to school progress and future social competency in industry, citizenship, and community life. These objectives should be less influenced than at present by the traditions of an academic curriculum.

**Concrete vs. Abstract Teaching.** It is true that there are some cases of mental subnormality where diagnostic teaching should be carried on as an aid in mental analysis. In general, however, it is not a question in classes for non-restoration cases of whether a boy can learn to recognize a few words or not. It is rather a question of what is the best use to which the time and effort of teacher and pupil may be put. With many of the mentally inferior group, even where they are not feeble-minded, training in oral expression and in everyday number work will be more profitable than reading and formal arithmetic. To make change, tell time, compute simple costs in an itemized bill, and many other useful manipulations of number relations can be taught without the introduction of long division or much knowledge of decimals.

Too little manual work and too little vocal expression are the rule in the special classes. Special class instruction should aim to adapt its method to removing handicaps which are not permanent and to compensating as far as possible for those that cannot be removed. The question of whether a pupil can learn a little of this or a little of that is negligible in comparison with the question of the best use of the pupil's time.

**Rooms and Equipment.** The classrooms and the equipment of most of the special classes are very much like those found in the regular elementary grade classrooms. As a rule there are ordinary school desks screwed to the floor. The lighting is in many cases inadequate, especially on dark days, but is not strikingly different from that in other rooms in the same buildings. Special equipment is inadequate.

In the case of small school buildings used by concentrated schools there are good possibilities for providing adequate equipment at an expense which is relatively small when compared with the expense of providing new buildings with complete equipment. Furnishing supplies for different kinds of manual arts is not systematized. Some teachers

report that their requisitions are supplied promptly. Others make their own purchases after waiting for supplies which do not come.

**Teachers in Special Classes.—Selection.** Teachers of these classes are appointed in the same way and receive the same salary as the teachers of the regular grammar grades. Though special qualifications of experience and training are considered in these appointments, there are no standard requirements for these positions. This will probably have to be the case as long as no difference in salary is made in favor of these teachers. Except in a few of the orthogenic disciplinary classes, all of the teachers are women.

**Training.** The Supervisor of Special Education makes the following report in regard to the training of special class teachers in the 166 classes of the present organization:

| | |
|---|---|
| Graduates of colleges | 8 |
| Graduates of Philadelphia Normal School | 136 |
| Graduates of private schools or schools outside of Philadelphia | 20 |
| Not reported | 2 |
| | 166 |

Eighty-five of these teachers have had additional work as follows:

| | |
|---|---|
| Philadelphia Normal School (postgraduate) | 13 |
| College courses | 52 |
| Summer school (Vineland, etc.) | 16 |
| Place not designated | 4 |
| | 85 |

Courses taken were designated as follows:

| | |
|---|---|
| 85 | teachers have had courses in Psychology |
| 82 | " " " " " Handwork |
| 34 | " " " " " Physical Training |
| 12 | " " " " " Manual Training |
| 19 | " " " " " Speech Correction |
| 11 | " " " " " Drawing |
| 7 | " " " " " Music |
| 8 | " " " " " Story Telling |
| 11 | " " " " " Miscellaneous Subjects |

**Spirit and Morale.** The spirit and morale of most schools and classes visited were good. This was true even in the three orthogenic disciplinary classes at the House of Detention, in spite of the fact that the pupils enrolled change so frequently that it is more difficult to win their personal loyalty than in other special classes.

**Supervision.** Until the recent appointment of a supervisor of special education, supervision of special classes under one of the Asso-

ciate Superintendents was largely in the hands of the principal of the school to which any class or classes were attached. Oversight has ranged from good-natured tolerance on the part of some principals, who had little interest in the problem and exercised little or no supervision, to a truly professional attitude and discriminating interest on the part of other principals. Many of these principals have made some special study of their problems at the University of Pennsylvania, where Witmer did pioneer work in pointing out the need for special classes. As might be expected under this lack of systematic supervision, much has been left to the teacher herself. The appointment of one supervisor is not adequate provision in this direction, particularly as the Supervisor of Special Education is also expected to devote a large share of her time to the psychological examination of pupils.

Moreover, it is not to be expected that any one supervisor will have special training in all the different lines of work undertaken by these different classes.

**Summary and Conclusions.** Although the development of special classes in Philadelphia has lacked organization and adequate supervision, the general tendency has been in the right direction. A system of special classes has been started in which the surveyors find much to commend and encourage. The recent appointment of a clinical psychologist as Supervisor of Special Classes, with the understanding that more attention is to be given to the selection of pupils for these classes, is still further evidence that the needs of the situation are being recognized even if they are not yet adequately met. Even where these classes have not fully met the needs of the physically and mentally handicapped pupils enrolled, they have increased the efficiency of teaching in the regular classes by relieving their teachers of the burden which the presence of handicapped pupils imposes.

The recommendations of the superintendents have shown an appreciation of the function of special classes and the need for their development. Public opinion, however, has not been aroused on the subject, and the Board of Education has failed to carry out many of the policies recommended. The present outlook in this direction is more encouraging.

The development of consolidated schools, where a number of special classes of a given type are concentrated, the recent formation of new types of special classes, and the enlightened interest of many principals and district superintendents all give promise for the future. No less encouraging are the spirit and morale of a large number of the special class teachers who, while working under difficult conditions due to lack of suitable rooms, equipment, and supplies, and without close super-

vision, have a high degree of professional interest in their work and a sincere purpose toward these handicapped pupils.

**Discussion of the Problem.—The Function of Special Classes.** The problem of special classes cannot be adequately considered apart from the problem of elementary education in general. Special classes are expected to care for those children of school age whose needs are not met in the regular classes. The better adapted to the needs of all pupils the elementary school curriculum becomes, the less need there will be for special classes.

At present the curriculum in the elementary grades is uniform in subjects taught, in content, in method of teaching, and in expected rate of progress. Children are admitted to the first grade at six years of age without any account being taken of physical maturity or mental capacity. They are all expected to make progress at the rate of one grade for each school year. A few make slightly more rapid progress than this by being given extra promotion. A far greater number become retarded in their school progress and appear in age-grade tables as "overage" for grade.

**A Uniform Curriculum Inadequate.** This uniform plan does not meet the needs of all pupils. The average time spent by pupils in completing the work prescribed for the first grade is 1.5 years. Ten per cent of the pupils of the upper first grade in the Philadelphia schools, in June of any year, have spent two or more years in this grade. The average time spent in each of the higher grades is about 1.2 years. Overageness is usually stated in the number of years by which the age of a given pupil exceeds the arbitrary standards set for such measurements. A child who is over seven years old in the first grade, or over eight years old in the second grade, etc., is said to be overage. If continually retarded in his school progress, the pupil becomes finally overage for his grade. Though this retardation in school progress is greatest in the first grade, overageness is cumulative, increasing through the fifth grade. Over one-third (35.2 per cent) of the pupils in the fourth, fifth, and sixth grades are overage for their grades. Nearly three per cent of the pupils in all grades have spent two or more years in their present grade.

It has been frequently assumed that it was the function of the special class to deal with these pupils who are "gravely retarded," as they are described in the section of the state law in regard to these classes. This conception is not peculiar to Pennsylvania nor to Philadelphia. In some states a pupil becomes a candidate for a special class as soon as he becomes "three years retarded." Little attention has been paid to the potential retardate, the pupil who is so mentally handicapped

that he must certainly become retarded in his school progress. The special class has been expected to deal with the failures of the regular grades rather than to prevent these failures.

In the case of the physically handicapped, the situation has been somewhat better, especially where the handicap has been extreme, as in the case of total blindness or total deafness. The needs of the deaf and the blind have been definitely recognized and special instruction in institutions has been provided for many of them. Those whose physical handicaps are less severe are much more numerous and yet their needs have been tardily recognized. The partially deaf and the partially blind have been allowed to get on as best they could in the regular grades. Thousands of cases of malnutrition are found in these grades.

**Relatively Small Groups in Special Classes.** The term "special class" implies a plan to deal with a relatively small number of pupils. To deal adequately with overage pupils in Philadelphia would require over 2000 classes. If only those who had spent two or more years in their present grades were included, the number of classes for the backward would have to be trebled. Numbers like these are not a *special* problem and it is not desirable to multiply classes for the backward to this extent. The same is true of the pupils who are anemic and ill-nourished. The special class should have to deal with relatively small numbers. Problems involving thousands of pupils in each school district of Philadelphia should be solved by a reorganization of elementary education.

Where the numbers are relatively large, their care becomes a problem of regular class organization just as much as the provision of high schools for those who are ready for secondary education. In Philadelphia there are more overage pupils in the fourth and fifth grades alone of the elementary schools than the total high school enrollment, yet we do not call these high school classes "special." The blind, the deaf, many cripples, and the feeble-minded belong in special classes throughout their school courses because their handicaps are permanent and the numbers of these pupils are comparatively small. Other relatively small groups, like the serious cases of defective speech or malnutrition, require special provision until their defects are overcome. The large groups of these with slight speech defect or slight undernourishment should be dealt with through corrective speech work and health education in regular classes. There will always be a need of restoration or adjustment classes to deal with those who can be returned to regular grades after a period of orthogenic teaching in special classes. The large numbers of those who have little aptitude for reading, and who fail to learn to study from textbooks, described

by Witmer as "congenitally illiterate," should have a curriculum planned for their needs, as outlined elsewhere in this report. Most of them should not be in special classes in a large city school system. In smaller cities, special classes might be required where there would be no need for them in Philadelphia.

**Handicaps Should be Recognized Early.** Nor should the opportunity of the special class be denied to the pupil who, because of mental or physical handicap, is a potential retardate. Means should be provided for recognizing these defects as soon as the child is entered in school or as soon as the condition develops. Some of these defects can be overcome at once. Where this is the case, remedial measures should be taken at once. Some of these handicaps can be overcome by orthogenic measures over a period of time. Some of them are permanent. This implies that it is imperative for the school system to provide mental and physical examinations so thorough in their findings that it will not be necessary to wait until the pupil is three years retarded before his needs are recognized. This diagnostic work belongs to the medical examiner and the psychologist in coöperation with the teacher.

**General Principles.** The following general principles are involved in the solution of the problems of special classes:

1. The school is made for children and not children for the school.

2. Children of the same age vary greatly in physical and mental qualities and capabilities both natural and acquired.

3. An elementary curriculum which is uniform in content, method, and expected rate of progress cannot meet the needs of all pupils equally well.

4. If special classes offer the only divergence from this uniformity, a very large number of them of many different kinds are needed; and, the more this curriculum is differentiated the less will be the need for special classes. Uniform treatment does not offer the equal opportunity for all which is held desirable in a democracy.

6. Even in a large city no amount of differentiation which is likely to be practicable can meet all these needs and some special classes will be necessary. But these should be established for numbers of pupils which are relatively small. The needs of large groups should be met by changes in the school curriculum.

6. Special classes not only offer opportunity to exceptional children but, by removing them from the regular grade classes, make the latter more homogeneous and thereby increase the efficiency of the teaching process in them. The main warrant for their existence and the additional expenditure of school funds necessary lies in this fact, though the advantages they offer to exceptionally handicapped children cannot be ignored.

7. Differentiation in the elementary curriculum through grading according to mental ability and more flexible curricula, is more feasible in cities where the school units are large. The need for special classes can, therefore, be made relatively less in Philadelphia than in smaller cities. Unless such changes are made the need in a city like Philadelphia will continue to be great and out of proportion to the advantages gained.

8. Special classes should be taught and supervised by persons with special professional training for this work. This special training should receive recognition in the salary schedule.

9. Pupils of normal mentality with some specific handicap like deafness, blindness, or ignorance of the English language, should associate in their school life as much as possible with normal children.

10. Emphasis should be placed on the early recognition of physical and mental defects, the removal of those which are remediable, and the early transfer to special classes of those who are likely to be handicapped in the regular classes.

11. Special classes should have definite objectives in education and training which take into account the potential mental and physical development of the pupils selected for them, both in regard to school progress and future social competency in industry, citizenship, and community life. These objectives should be less influenced than at present by the traditions of an academic curriculum.

## RECOMMENDATIONS

**Examination and Supervision Should be Separated.** The work of supervising and organizing special classes should be separated from that of making psychological examinations of the mentally handicapped. These examinations should be carried on by psycho-educational clinics under the Bureau of Child Study recommended elsewhere in this report.* The work of these clinics should be closely coördinated with the examinations made by medical inspectors and should not be restricted to candidates for special classes. Moreover, the work of supervision is more than one person can undertake and the range of special work is greater than the training of any one supervisor is likely to cover.

**Supervision.** There should be a Director of Special Education with four supervisors in charge of these special classes. One of these supervisors should have charge of classes for the physically handicapped. Her training should be in public health work and in elementary school methods for this group of pupils. Another should

* Chapter on Classification of Pupils according to Ability.

have charge of the orthogenic backward classes and the restoration classes. Her training should be in orthogenic methods and in work for the mentally defective, including prevocational manual arts as well as the ordinary school subjects. Another, preferably a man, with training in dealing with disciplinary cases should have charge of the orthogenic disciplinary classes and should coöperate with the Bureau of Compulsory Education and the Juvenile Court. A fourth supervisor should have charge of the corrective speech work. Each of these supervisors should have ability in teacher training in his particular field.

**Examination of Pupils.** As recommended elsewhere, there should be a psycho-educational clinic in some convenient central location in each of the eight school districts of the city. The logical place for this clinic would be in the same school building with the office of the district superintendent. The work of this clinic would by no means be restricted to the examination of candidates for special classes. A psychological examination is desirable in the case of the physically handicapped as well as in cases of suspected mental subnormality. No pupil of any type should be transferred to a special class without medical examination. In the case of the physically handicapped this should be supplemented by examination by specialists in orthopedics, tuberculosis, ophthalmology, etc. Recommendations for remedial measures should be followed up by school nurses and social workers. Notes of findings, recommendations, etc., by medical or psychological examiners should become part of a cumulative record which goes with the pupil to the school or class to which he is transferred. The coöperation of parents should be secured.

The aim of this adjustment should be to provide (1) a proper understanding of the case, with interpretation of all the medical, psychological, social, and pedagogical data available, (2) remedial measures, and (3) the best educational adjustment and opportunity possible.

Recommendations for transfer to a special class should be approved by the district superintendent.

**Surveys.** The need for the further organization of special classes of different types should be determined by frequent surveys. All cases of children reported by the Bureau of Compulsory Education in connection with the school census who are not in attendance at school because of physical or mental handicaps should be investigated and reports on them made to the director of special classes. Medical examiners should report cases of serious physical defect or suspected mental deficiency. Principals should report pupils for special examination who seem likely to be candidates for special class instruction. Especial attention should be given to those who enter school for the first time in the kindergarten

or first grade or from some other school district. Surveys by questionnaires to principals should be made systematically from time to time. Age-grade tables should be reviewed and pupils who are seriously overage for grade or who have spent more than 20 months in the same grade should be examined. The Board of Education cannot be expected to provide for the extension of special classes unless the need is definitely pointed out to it and based on accurate data of this sort. The facts should be made known through the press so that public opinion may be informed and the Board of Education supported in this work.

**Concentration of Classes.** Most types of special classes can do their work more effectively and economically if a number of classes of a given type are concentrated in a single school where the classes may be graded, departmental teaching introduced, special equipment, gymnasiums, etc., used to better advantage, and supervision become more effective. The present policy in this direction should be encouraged.

Restoration classes should not be concentrated. Some of the nutrition classes for undernourished and anemic children may well remain in smaller centers to serve as object lessons in nutrition in health education. Classes for the blind, the partially blind, the deaf and the partially deaf should be in small centers of not more than three classes. This allows for grading and still permits these pupils to have many of their school activities with physically normal children. Speech-correction classes should not be concentrated as most of the work is individual and other school work is carried on in regular classes.

TABLE 5.—MAXIMUM ENROLLMENT FOR SPECIAL CLASSES

| Type of Class. | In Single Ungraded Class. | If Concentrated: Number of Classes in a Single Unit. | | |
|---|---|---|---|---|
| | | 2 or 3. | 4 to 6. | 7 or more. |
| Restoration | 20 | * | * | * |
| Backward | 15 | 20 | 20 | 20 |
| Disciplinary | 15 | 20 | 25 | 30 |
| Exceptionally Bright | 15 | 20 | 25 | * |
| Mental Hygiene | 15 | * | * | * |
| Blind | 8 | 10 | * | * |
| Sight-Conservation | 10 | 12 | * | * |
| Deaf | 8 | 12 | * | * |
| Hearing-Conservation | 12 | 15 | * | * |
| Anemic | 20 | 25 | 30 | 30 |
| Tuberculous | 20 | 25 | 30 | 30 |
| Orthopedic | 15 | 20 | 25 | * |
| Cardiac | 15 | 20 | * | * |
| Speech Correction | 10† | * | * | * |

* Further concentration not recommended.

† Assigned to a single school period.

**Size of Classes.** The size of class to be recommended depends on the homogeneity of the class. The better the grading the easier it will be to give satisfactory instruction in a larger class. Table 5 shows a maximum enrollment for classes of different types. Six pupils should be considered a minimum for any class.

**Institutional Care.** Institutional care in a state or private institution should be urged in the case of many atypical children of school age and their admission to school should be allowed only because such care can be provided. The low-grade feeble-minded child, usually referred to as an "institutional case," is trainable rather than educable and does not properly belong in school. The physically handicapped who are also feeble-minded should also be classed as institutional cases. The feeble-minded blind, deaf, and paralytic do not properly belong in special classes. If these children or children of the idiot or imbecile group are admitted to school at all, they should be placed in day nurseries under the care of a matron as described above. The school should not employ a trained teacher for these cases. Custodial care during school hours is the most that should be asked of the public school.

The psychopathic or emotionally unstable feeble-minded child is usually a potential delinquent and is less likely to become socially competent even under favorable circumstances than the docile type of the same intelligence level and should be considered an institutional case. The backward classes afford opportunity for study of the unstable types and can perform an important service in making reports on those for whom institutional care is most urgent. The social menace of feeble-mindedness is often greater in the higher grades of intelligence among the feeble-minded, who, because of emotional instability or psychopathic tendency, give less promise of becoming socially conformed. Even when some of these types are retained in school in their early years, transfer to institutions before puberty should be urged.

**Teachers and Teacher Training.** Where classes are grouped in concentrated schools there should be a principal or head teacher in charge. Where the number of classes is eight or more this head teacher should have no class of her own. Class teachers in these schools should more and more be chosen with reference to fitness in some branch of departmental teaching, as well as for general professional training. Specialization is likely to make special-class teaching more attractive to teachers.

Teachers for some types of special classes not now in existence in Philadelphia will have to be secured by going outside the present force or by special training. In the case of the blind and deaf, special training is imperative. For teachers of mental hygiene classes and for those for

exceptionally bright pupils, training by the supervisors in actual classroom experience with some summer school work is recommended. For corrective speech work, the supervisor of speech correction should have under her charge a number of teachers who would teach in a number of different schools. Part of the work of the supervisor and these special teachers should be to train teachers of regular classes in the elements of speech correction. The teachers of restoration classes should be teachers of marked adaptability in individual instruction. They should have special training in orthogenic methods and a record of successful grade experience.

**Salaries.** Special-class teachers who receive special training in addition to their regular training should in consequence of this further and special training receive a correspondingly larger salary. Without this salary differential it will be impossible to attract competent persons into this field.

**Normal School Course.** The Philadelphia Normal School should organize its course for teachers of special classes. Practice teaching in special classes should be provided. It is not feasible, however, for the normal school to attempt training teachers for the deaf, the blind, or those partially deaf or partially blind. Highly specialized training in departmental lines and in occupational therapy and the like must also be obtained elsewhere.

**Equipment.** Equipment should be adapted to the needs of the particular type of pupils in the different classes and the educational aims of the class. In the restoration class no special equipment is necessary. In the backward and disciplinary classes the equipment should make possible departmental work in manual and household arts and include a gymnasium, auditorium, and playground. Equipment for teaching the totally and partially blind is well standardized and should be provided. Equipment for orthopedic and nutrition classes is discussed elsewhere.

**Guidance.** The very fact that individual teaching is carried on in special classes to which children are transferred after careful individual examination implies that educational guidance is being given. Vocational guidance, with follow-up work and placement service, discussed elsewhere in this report should include pupils of special classes in its program.

### RECOMMENDATIONS FOR PRESENT TYPES OF SPECIAL CLASSES

**1. Orthogenic Backward.** Pupils enrolled in orthogenic backward classes should be reviewed along the lines indicated above. Restoration

cases should be transferred to special classes for this type of pupil. Low-grade feeble-minded pupils should be excluded and provided for as custodial cases in institutions, at home, or at most in day nurseries. Those who are merely backward because they are not able to profit by the present academic curriculum, though quite able to become socially competent later, should be transferred back to regular classes where they should be placed in "slow" sections of these grades. This would reduce the present enrollment of these classes by one-third to one-half. There are more than enough pupils now in the regular grades to fill their places.

The number of these classes should be increased. Probably 3000 to 3500 pupils properly belong in classes of this type.

With restoration cases removed from these classes the formal work in reading, arithmetic, etc., should be greatly reduced. Not more than one-fifth of the time of the school session should be devoted to books. The majority of these cases do not attain a competency in this work beyond a third or fourth grade level and much of even this meager training is never useful to them in after life. Education for this group must be concrete rather than abstract, manual rather than intellectual, and prevocationally practical. It should be directed along the lines of the curriculum which the better institutions for the feeble-minded have developed for the moron group. Health, physical fitness, motor and sense training, and the ability to work under supervision should be the principal aims of this work. Much of the work may be called training rather than education.

**2. Orthogenic Disciplinary.** If the classification of pupils in the elementary grades recommended in other sections of this report becomes effective, and if cases of maladjustment in school work are recognized early and corrected promptly, the number of disciplinary cases will be considerably reduced. Most of the pupils who remain as disciplinary problems will be found to come from homes where conditions are unsatisfactory. Some of them can be helped in classes of this type. Others should be sent for a time to a parental home.

It should be the aim of superintendents and principals to reduce to a minimum the number of pupils for whom these classes are needed. Most of these cases have developed from preventable causes. No pupil should be transferred to a class of this type without having a trial in another school.

Excellent work is being done in the Lee Special School, but the fact that 80 per cent of these boys are overage for grade shows that the schools from which these pupils have come have failed to meet their educational needs or to help them to overcome handicaps due to mental inferiority, emotional instability, and unsatisfactory home conditions.

The supervisor of these classes should coöperate closely with the Bureau of Compulsory Education, the Juvenile Court, and Child Welfare agencies.

**3. Orthopedic Classes.** As indicated above, the number of these classes should be increased. Pupils not now attending school anywhere on account of paralysis or other crippled condition, should be given educational opportunity. More attention should be given to corrective exercises and to occupational therapy. Corrective speech work is required in many cases. Amputation cases, otherwise normal, should be brought to school in the bus provided for cripples, but should be in regular classes in most cases. More frequent inspection by an orthopedic specialist is desirable. He should coöperate with the supervisor in prescribing corrective exercises to be carried out in the gymnasium and at home. These pupils should be graded in their school work. The feeble-minded cripples require a special program of studies. A number of these are institutional cases who do not properly belong in school.

**4. Nutrition Classes.** The number of these classes is inadequate. As stated above, it is not feasible to transfer to these classes all cases of undernourished children. The majority of these should be dealt with through health education, special lunches, rest periods, and home coöperation in the regular classes. Each class for undernourished children, or for tuberculous cases, should be a demonstration class with its major aim directed toward health education in the community. Closer medical supervision is desirable. Lunches should be provided by the Board of Education instead of through extra-school agencies. Their physical surroundings in school should be improved as indicated above.

**5. English Classes.** These special English classes should be abolished.

### RECOMMENDATIONS IN REGARD TO NEW TYPES OF SPECIAL CLASSES

**1. Restoration Classes.** A few orthogenic backward classes are already of this type. A greater increase is needed in the number of these than in other lines of special class work for backward pupils. Each high school and each elementary school of more than ten rooms should have a restoration class. The type of instruction should be orthogenic.

The aim of these classes should be to get a pupil ready for transfer back to a regular class. Pupils who give no promise of such restoration should not be retained. As stated above, the number of these classes needed will be greatly reduced if pupils are classified according to ability in regular classes.

**2. Blind and Deaf.** The number of classes for the partially blind and for the partially deaf should be increased. Classes for the totally blind and totally deaf should be organized. Smaller communities and some sections of Philadelphia have too few of these cases to warrant the establishment of special classes for them. Pupils in these sections should be sent to institutions for the blind or for the deaf. It is better, however, for them to live at home, if possible, and to associate with normal children.

Better facilities for the sight-conservation classes should be provided.

**3. Cardiac Cases.** During the year 1920 there were found 955 pupils showing conditions of the heart that were diagnosed as Endocarditis or Myocarditis.* A considerable proportion of these are undoubtedly in such a serious condition as to need very careful care and supervision. For such pupils the climbing of the one, two, or three flights of stairs that is often necessary in order to reach their classrooms is a source of considerable danger. Special classes, on the first floor, should be organized for these pupils; then they could have special exercises, rest, feeding, modification of curriculum, and such other scientific care as may be necessary.

These classes might well be grouped with those for the tuberculous and for the undernourished, and all three types put under the supervision of a special medical inspector.

**4. Speech Correction.** Speech correction in difficult cases should be carried on by having a number of pupils assigned to a special teacher. This is not a class in the usual sense of the term. There is great need for the development of this work under expert supervision. A census made by the public school teachers of Philadelphia during the month of January, 1921, shows 3001 pupils with speech defects in the regular grades of the elementary school and 221 pupils with speech defects in special classes. A subsequent examination in certain schools by a trained examiner shows that there are more pupils with speech defects than the teachers reported. Extensive investigations elsewhere also confirm the opinion that there are more than 3222 pupils with defective speech in Philadelphia. The 1920 school census indicates that 58 pupils with speech defects are not attending school anywhere.

**5. Mental Hygiene.** No accurate data are available as to the need of special classes for children who are emotionally unstable or show choreic, epileptic, or psychopathic tendencies. Here, as in the nutrition classes, advancement in school work should be secondary to

* Annual Report, Director of Medical Inspection.

medical treatment and nervous rehabilitation. This is primarily a problem in health education. It is probable that careful examinations of many so-called "problem children" by a medical inspector with psychiatric training will show the need for classes of this type.

**6. Exceptionally Bright Pupils.** After some plan of reorganization of the elementary schools becomes effective, so that grading and promotion will take into account differences in general intelligence and capacity for school work, it will probably be found that there are still some 1 to 2 per cent of brighter pupils whose needs are not met by this plan. The organization of special classes for these exceptionally bright pupils will naturally follow.

### SUMMARY OF RECOMMENDATIONS

The recommendations made in this report call for a considerable extension of the special classes in Philadelphia and development along lines already begun, rather than any revolutionary action. Even if it is not practicable to carry out at once the full program suggested, the superintendent should prepare a comprehensive program of development of special classes outlining what should be expected in the next five years.

This should outline clearly the function of special classes and their educational aims, as well as the general principles underlying their organization. Statistical data should be secured in regard to the number of children of school age, in school and out, who are properly candidates for special classes of different types and their location by school district. This program should make clear the need for better supervision, more thorough examination of candidates whether in school or kept at home, and better facilities in the way of special equipment and material.

The superintendent should put the facts in regard to the need for this development of special classes before the people of Philadelphia, through the press and other channels of publicity, in order to secure an informed public opinion which will support the Board of Education in favorable action on his program. In securing publicity it is desirable to emphasize the plan for an equal opportunity in school for these handicapped children, but no one should be allowed to forget that the children in the regular classes will also be benefited through this program of special class extension and development.

## ADDENDA

The development of special classes in Philadelphia, as reported by the Superintendent of Schools during the past year, shows a number of changes of policy and extension of work already begun. From 166 special classes on January 1, 1921, the number has been increased to

222 on January 1, 1922. Besides these special classes a number of restoration classes for normal children and for diagnostic teaching in doubtful cases have been organized. The distribution of the special classes for January 1, 1922, is shown in Table 6.

TABLE 6.—DISTRIBUTION OF SPECIAL CLASSES BY SCHOOL DISTRICTS, JANUARY 1, 1922

| Kind of Class. | Districts. | | | | | | | | Total. |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| 1. Orthogenic (Backward) | 14 | 24 | 8 | 12 | 17 | 30 | 9 | 13 | 127 |
| 2. Orthogenic (Disciplinary) | 2 | 3 | 12 | 4 | 1 | 15 | 1 | 1 | 39 |
| 3. Orthopedic | 4 | 1 | .. | 1 | 2 | 4 | .. | 3 | 15 |
| 4. Nutrition (Malnutrition) | 1 | 1 | 1 | .. | 3 | 1 | 1 | .. | 8 |
| 5. Nutrition (Tuberculous) | .. | 2 | .. | .. | .. | 3 | 2 | .. | 7 |
| 6. Conservation of Vision | 1 | 1 | 2 | .. | 3 | .. | 1 | 1 | 9 |
| 7. Conservation of Hearing | .. | 0 | .. | .. | .. | .. | 2 | .. | 2 |
| 8. English | .. | 1 | 7 | 2 | 1 | 4 | .. | .. | 15 |
| Total | 22 | 33 | 30 | 19 | 27 | 57 | 16 | 18 | 222 |

A second concentrated school for orthogenic disciplinary classes similar to the Lee Special School mentioned in this report has been established.

Speech improvement work has been organized and is now being given by about twenty teachers two hours each school day under a supervisor of this work. Plans are being made for the extension of this work in the future.

Much more attention has been given to a careful examination of pupils who are transferred to special classes. No adequate provision is yet made for having this done on the scale which will be necessary if the special class teachers are to know definitely what the educational aims and objectives should be in the cases of pupils transferred to their classes. Special class teachers will continue to stress the restoration aspect of their work with too great emphasis on drill in the academic subjects of the elementary school curriculum unless more individual study is made of these pupils.

The policy of admitting totally deaf children to the hearing-conservation classes has been adopted. Orthopedic cases that are not helpless, and do not require special seating, and also amputation cases that can get about on crutches are being transferred to regular classes. The care of mentally defective children of low grade by matrons rather than by teachers, as in day nurseries, is being considered. Nutrition classes as a form of health education for malnourished childrem in the regular grades have been established.

The supervisor of special education has been made a director and four supervisors have been appointed.

A salary differential of three hundred dollars is now allowed for teachers of special classes.

This increase in the number of special classes, with improvement in supervision and recognition of the work of the teachers in these classes in the salary schedule, not only gives promise of a satisfactory future for these classes in Philadelphia but sets an example for other cities in the State, and should have a desirable influence upon elementary education in general.

# CHAPTER III

## CONTINUATION SCHOOLS

**Purpose and Methods of the Survey.—Purpose.** The purpose of this survey is to determine the condition of continuation schools in Philadelphia, to comment on those points which merit approval or disapproval, and to recommend methods whereby the efficiency of these schools may be improved.

**Method Employed in Obtaining Data.** Information was obtained during the early part of the school year 1920–21, by personal interviews with officials, principals and teachers.*

**Administration of Continuation Schools in Philadelphia.—Definition.** Continuations schools, as required by the Child Labor Act of 1915, are intended to provide at least eight hours of approved instruction each week during the public school term for children fourteen to sixteen years of age who are employed under authority of general employment certificates. The Bureau of Compulsory Education issues employment certificates and enforces attendance. The Director of Extension Activities is responsible for all detail pertaining to organization and administration. From him responsibility is delegated to the principal of the elementary school, high school, or segregated continuation school in which the classes are housed.

**Factors Leading to Present Status.** The annual reports of the Bureau of Compulsory Education show that before continuation schools were established in Philadelphia in January, 1915, upwards of 20,000 children were out of school and presumably working. The enforcement of attendance at the continuation schools at once showed that many of these children were running the streets; it restricted the number which dropped out of school to those who obtained and kept bona fide employment. This number did not go beyond 12,000 even when the demand for juvenile workers was at its height in 1919, and it dropped to about 10,000 in June, 1920. It is evident then that the continuation schools have exerted a beneficial influence in keeping children in the full-time schools.

To provide teachers and housing accommodations for these pupils was a difficult problem. Before the schools opened in January, 1916, a group of teachers was given a preliminary training course on methods of organization and instruction in continuation school classes. Available

* See Addenda.

rooms in elementary and high schools throughout the city were taken, and the local principals were made responsible for the work in their respective schools. As opportunity offered, regular school equipment for cooking and sewing for girls and for manual training for boys was pressed into service and the regular teachers of those subjects were used as supplemental teachers for continuation school groups. Where the number of children employed in a single commercial or manufacturing establishment made such action advisable special classes were organized to meet in the store or factory where the children were employed. After experience showed the advantage of large segregated groups of continuation school children, central schools were established in the Hollingsworth School, in the McCall (Binney) School, and in the Hart School.

**Situation in September, 1920.** In September, 1920, Philadelphia is caring for its continuation school children on this basis:

### Number of Pupils

| | |
|---|---|
| In elementary classes | 7,894 |
| In high school classes | 2,733 |
| Total number of pupils | 10,627 |

### Number of Teachers

| | |
|---|---|
| Continuation teachers giving full time | 70 |
| Practical arts teachers giving full time | 10 |
| Practical arts teachers giving part time | 35 |
| High school teachers giving part time (approximately) | 90 |
| Total number of teachers | 205 |

### Number of Continuation School Centers

| | |
|---|---|
| In elementary school buildings, 7th and 8th grades | 21 |
| In large central continuation schools | 3 |
| In stores and factories | 10 |
| In the Girls' Trade School | 1 |
| In high schools | 8 |
| Total number of groups or centers* | 43 |

### Number of Opportunities for Practical Work

| | For Boys. | For Girls. |
|---|---|---|
| In 21 elementary schools | 13 | 13 |
| In 3 central continuation schools | 3 | 3 |
| In 10 store and factory classes | 3 | 3 |
| In 1 Girls' Trade School | 0 | 1 |

* See Addenda.

In addition in eight high schools, there are five opportunities for boys or girls.*

**Apportionment of Pupils, Teachers, and Centers.** Approximately 47 per cent of all the pupils are enrolled in 3† central schools.* They received instruction from 57 centralized teachers. Fifty-three per cent of all pupils are enrolled in 30 widely dispersed schools. They receive instruction from 148 widely dispersed teachers.

It is to be noted here that this geographical distribution causes an undesirable rigidity of organization which affects unfavorably the assignment of pupils, isolates continuation school teachers except in the three central schools, makes adequate supervision difficult, and results inevitably in a tendency to make the continuation school problem a side issue except in the three central schools.

**Method of Assigning Pupils.** A boy or girl who wishes to leave school to go to work obtains, from the prospective employer, a written promise of employment; from the principal of the school last attended, a certificate showing completion of six yearly grades of public school work, or equivalent; written evidence of age as required by law; and a certificate that the minor has passed a satisfactory physical examination at the hands of an approved physician. Thereupon, at the office of the Bureau of Compulsory Education a general employment certificate issued in the name of the minor is mailed to the employer, and the minor is assigned to attend a continuation class located near the place of employment. This class may be any one of the following:

1. An elementary seventh or eight grade, special, continuation class in one of the twenty-one elementary schools.
2. An elementary or a high school class in one of the three central continuation schools.
3. A special class, usually seventh or eighth grade, sometimes high school grade, in the store or factory where the minor is to be employed, but under the jurisdiction of an elementary school or central continuation school principal.
4. For the employees of one factory, a special class in power machine operation in the Girls' Trade School.
5. A special high school continuation class in one of eight high schools.

That is, the assignment is made with reference to (a) the number of school grades completed by the minor and (b) the place of employment. The assignment blank, duplicated in numbers sufficient to notify all persons concerned, gives essential information as to the

* See Addenda.

† This includes the five store classes.

name, residence, previous school grade, and place of employment of the minor. Further detail may be dismissed with the statement that the machinery functions well and that the pupil is promptly transferred from attendance at a regular day school class to attendance at a continuation school class.

**Types of Continuation School Classes.** The type of class to which a pupil is assigned may be any one of the following: (a) An elementary school class, (b) a store or factory class, (c) a central continuation school class, (d) a special class in the Girls' Trade School, (e) a continuation school class in a high school.

### ELEMENTARY SCHOOL CLASSES

**Organization and Program.—Cumulative Records.** All of the 18 schools visited reported that the health record of the child does not come to the school, but is filed at the place of issue of the employment certificate. The only record of previous schooling is a statement of the grade last attended. The services of the school physician on his rounds are available for continuation school pupils, on the same basis as for other pupils, provided that the continuation school pupils are present on the day of the physician's visit. Teachers are thus debarred from the use of information on all except obvious physical handicaps, or on the pupil's academic strength and weakness. A cumulative health record card and a cumulative school record card, transmitted from the former teacher to the continuation school teacher, would often furnish information valuable for guidance purposes. Such cards should be formulated and used.

**Grading.** About half the schools are able to classify the children accurately by grades, the remainder have mixed grades. Where the classes are graded it is possible to promote a pupil on the basis of achievement to a higher grade or to a high school class. Any attempt to lay stress on prevocational instruction or to give the pupils the opportunity to discover self-aptitudes is thwarted by the rigidity of this type of organization.

**Attendance.** In only 10 of the 18 schools are the full 8 hours per week attendance required by law obtained. In 3 others, the pupils attend 6 hours one week and 8 hours the next. In 4 schools no pupil attends more than 6 hours each week. This condition arises from the fact that the full 8 hours is required only where there is opportunity for manual training for boys and cooking or sewing for girls. Inasmuch as all except one of the schools giving less than 8 hours a week require the pupils to come on parts of two days, it should be possible to arrange for two four-hour sessions and thus meet the requirement of the law. At

present 19 per cent of all pupils in elementary schools receive less than the required 8 hours per week.*

**Assembly.** The plan of scattering the pupils in so many different schools makes it impossible to get them together for any assembly exercises. Not one of the schools reported the existence of such assembly opportunity. The value of the assembly for developing a desirable school spirit and for training in citizenship is so great that this omission is to be regretted.

**Instruction Conditions.—Academic Subjects.** All schools give instruction in the required subjects, English, civics, industrial geography, hygiene, arithmetic, drawing. The time allotments are uniform and satisfactory and the textbooks are satisfactory. The majority of teachers build up their instructional material from original sources, and use the textbooks to supplement this instruction. This uniformity of procedure indicates that the probable maximum of efficiency of instruction under existing organization is obtained.

**Overcrowded Classes.** The average number of pupils per class is 25.6.* The standard for effective work in such classes should be twenty pupils. It is to be noted, however, that where a class is divided during part of the day, for the girls to get cooking and sewing and the boys to get manual training, the resulting numbers in these practical arts sections are small enough to be satisfactory. The average figures just presented are good considering the difficulties of distribution over so many widely scattered classes. A number of classes, however, contain from thirty to forty-eight pupils, which is altogether too many for effective work.

**Practical Arts Classes.** In 13 of the 18 elementary schools the girls receive instruction in sewing and cooking, and the boys receive instruction in manual training. The equipment for sewing and cooking is one of three or four standard equipments provided for elementary schools. This instruction is so valuable that it should be extended to all the pupils. The manual training work for the boys has provided the obvious benefits of such work. The course is uniform and the instructors show a good average of competency. Such work, however, falls short of meeting the specific needs of continuation school boys because it fails to give variety of opportunity. With the exception of one class in printing, the instruction is restricted to conventional elementary wood working manual training. The prevocational opportunity is lacking and the entire lack of machine tools restricts variety of production and fails to acquaint the pupils with conditions of industrial production.

* See Addenda.

One of the most essential functions of the continuation school is to help the pupil to make a proper adjustment to his place in industry. This implies vocational guidance of the most practical and concrete nature, the opportunity for the discovery of self-aptitude through a reasonable variety of basic prevocational shop work, and the motivation of all class work by applying principles and remedying defects discovered by experience in employment or in the school shop. The need of specific training of teachers on these points will be considered later, but at this time it is to be noted that the academic continuation teachers as a whole are not in touch with the practical arts teachers, do not know in detail what is going on in the school shops, and fail to use the shop experience of the pupils to motivate the academic work. The remedy is to group the pupils in central schools where numbers of pupils will justify variety of practical arts work and numbers of teachers will make possible a flexible program which permits the teachers to supplement one another's instruction.

**Personnel, Program, and Training of Teachers.—Attitude of Teachers.** In these 18 schools 25 academic teachers and 10 practical arts teachers were interviewed. The academic teachers are a carefully selected group who devote full time to continuation pupils. Teachers regularly certificated for grade work are called in for a special interview under the direction of the associate superintendents and those who seem best fitted for the special work of the continuation school are assigned to that service. As a group they are capable, earnest teachers, gifted with initiative, devoted to their special work, social-minded, and imbued with a missionary spirit.

The practical arts teachers, appointed primarily for work in the regular elementary schools, devote only part time to the continuation classes. They are competent teachers in their own fields. Any special adaptation of their work to the specific needs of the continuation group depends on the initiative of the individual teacher. Only a very limited amount of such adaptation was discovered. Existing conditions of organization and equipment designed primarily to meet the needs of regular school pupils decidedly limit the possibilities and the probabilities of such adaptation to the continuation pupils.

**Defect of Program.** The roster of continuation academic teachers uniformly assigns 30 clock-hours per week of classroom instruction to each teacher. Not a single instance was found of definite assignment to follow up work at the place of employment or home of the pupil, or even in the school shop. Two teachers were found, who voluntarily did a small amount of such work on their own time. In consequence few teachers have more than a vague, general idea as to the conditions

under which their pupils work and live. Vocational guidance if undertaken at all is restricted to theory, to hypothetical cases, to abstract discussion. Specific knowledge is lacking as to the instructional content of the job of the pupil, the lines of promotion, the qualifications and experience necessary to obtain promotion. The motivation of class instruction through the teachers' accurate knowledge of industrial conditions is restricted and is frequently entirely lacking. The coöperation of employers is restricted to matters of attendance. Parents do not know what the school is accomplishing or could accomplish for their children. The teachers do not have opportunity to learn in detail what is done in the school shops and consequently do not utilize those experiences in class work. The device of making for each teacher a definite program assignment of a few hours each week for follow-up or coördinating work would modify the classroom instruction, increase the interest and the industry of the pupils, and remedy a great part of this weakness.

**Lack of Training.** The lack of specific training of teachers for continuation school work is widespread and is serious.* Those teachers who entered continuation work five years ago received a short course of preliminary training. Apparently, the assignment of other heavy responsibilities to the administrative officials in charge of continuation schools required so much of their time and energy that the proper training of continuation teachers was permitted to go by default. Of the 25 academic teachers in the group under discussion, only 8 had received preliminary training, all but one of them in the one course given five years ago. Of these, 3 teachers have taken a subsequent course of training, and 1, who had not taken the preliminary training, took one summer course. Of 10 vocational teachers interviewed only 2 stated that they had taken special teacher-training courses.

Instruction to continuation pupils to be effective must differ from routine grade instruction so decidedly in instructional content, in method, and in lesson planning, that every teacher should have a preliminary course of training before undertaking this work, and should during the three following years carry on courses of professional improvement especially adapted to the problems of continuation school work. As the schools are at present organized, with one or two continuation teachers in widely separated schools, teachers lacking in special training, deprived of intercourse with other teachers in the same field, are dependent upon their own initiative and resources. The continuation teachers have voluntarily organized an association among themselves which holds monthly meetings. Usually some time at each of these meetings is devoted to a discussion of helpful methods.

* See Addenda.

Supervision of class work is almost entirely limited to that of the local elementary principal, who naturally has made no special study of the needs of continuation pupils, although his interest is invariably keen. Very many of the continuation teachers commented on their professional isolation and expressed a desire for opportunity to meet their fellow continuation teachers for the purpose of professional improvement. The surprising fact is that under these conditions so much good instruction is being given. These teachers were a selected group, they put their hearts into their job, they learned by bitter experience the wrong methods and the right methods of continuation school work. But this is a wasteful expensive method of acquiring experience. Much of it could be avoided if suitable training courses were offered and attendance upon these courses required of all the teachers.

**Men Teachers.** The lack of men teachers is noticeable.* All but one of these twenty-five teachers are women. The value of men instructors for adolescent boys is axiomatic.

**Prescribed Topics.** Any course of study for these pupils should be elastic, suggestive and tentative rather than rigid. But at present it sometimes happens that a pupil transferred from one school to another is required to go over ground that had already been covered in the first school. A definite prescription of topics to be presented in each half semester would avoid most of this repetition where a pupil is transferred.

**Need of Supervision.** The creation of the position of a Director of Extension Activities during the current year will tend to improve the conditions just discussed, since it transfers much of responsibility for detail in continuation schools from the over-burdened Associate Superintendent to the new Director. But this action, although a long step in the right direction, does not go far enough. The Director of Extension Activities is responsible not only for continuation schools but also for all evening schools, all Americanization classes, some supervision of recreation in public schools, general supervision of extended use of school plants. The continuation school problem is so large that the Director should have one or two assistants in this field alone to give expert supervision, arrange courses of study, act as a clearing house for valuable experiences and methods, and especially to arrange for adequate preliminary and improvement training for teachers.*

**Miscellaneous.—Attendance.** The relations of the Bureau of Compulsory Education to the continuation schools are uniformly satisfactory. The issuance of employment certificates, the assignment

* See Addenda.

of pupils to the appropriate school, the following up of cases of non-attendance proceed with reasonable promptness and with a fine spirit of coöperation.

**Employers.** The relations between employers and continuation schools do not show active coöperation. The absence of any scheme of follow-up or coördination work brings about a state of affairs wherein the employers have slight knowledge of the activities of the school, and the school has little contact with the employer except in the matter of arranging for hours of attendance. The readiness of employers to coöperate is indicated by the experience of 8 of the 25 schools which report that the attitude of the employers is better than satisfactory. Not a single instance was discovered in which any criticism was made against employers. This would indicate that the employers are likely to respond to any movement leading to closer coöperation of a constructive nature. The method of getting such coöperation is through coördinating, or follow-up work.

**Parents.** The attitude of parents is in singular contrast to that of the employers. Only 2 schools report coöperative relations, 10 schools report the parents to be passive, and 4 report no contact. In general the schools report that the parents yield a passive obedience to the law rather than any interest in the school work of the pupils. The remedy for this situation is follow-up work on the part of the teachers.

**Principals.** The attitude of the principals of the elementary schools toward the continuation work is indicated by the fact that of the 15 principals interviewed, all were alert for helpful suggestions. The majority were of the opinion that better results could be obtained if the continuation pupils could be grouped in special centers where mass numbers could make possible a better grouping, a variety of prevocational opportunity, and an *esprit de corps*. Again and again, reference was made to the central continuation schools as a type of organization and administration much better adapted to the needs of these pupils than that of scattering the pupils among so many different schools. The evident eagerness of these principals to provide for the welfare of the pupils, their realization of the need for maintaining contact with the school, their belief in the possibility of part time instruction, are convincing evidences that any shortcomings in the continuation school are due to the conditions under which the work is being done rather than to any lack of zeal or effort on the part of principals or teachers.

**Supplies.** Without exception schools reported that in amount and in promptness of delivery of supplies and texts, the continuation

classes are as well cared for as the other classes. The curtailment of supplies during the current year applies equally to all schools.

**Pupils' Attitude.** Queries as to the attitude of the pupils in their relation to the continuation school invariably brought out the same response. In the first two years of the existence of continuation schools, problems of discipline, of lax attendance, and of lack of interest on the part of the pupils were acute. During the past two years those problems have almost disappeared. The majority of the teachers made the same reply, "You would not know that they were the same class of pupils." The explanation is that in the early years of the continuation school pupils who had been away from all school influence for many months were brought back to the continuation school. Already they had forgotten so much of what had been taught them, had so lost the habit of application and of study, had so far succumbed to the abrasive influences of industry, that much of the investment of years of effort and expense in getting as much education and training as they had received, was wasted. Now that loss does not occur. Within a week from the time a pupil leaves the day school he is in attendance regularly for several hours each week at the continuation school, and one of the most important functions of the continuation school, that of conserving the education and training already invested, is fulfilled.

**Summary.** The foregoing facts and conclusions have been developed in detail in their relation to the group of elementary continuation schools. Except as indicated the fundamental points heretofore developed apply with equal force to the types of schools hereafter discussed, even though in what follows the point may be merely mentioned instead of being fully developed.

## STORE AND FACTORY CLASSES

**Organization and Program in Stores.—Attendance.** In general in the 5 store classes a pupil attends 3 or 4 hours in a morning session, and 3 or 2 hours in an afternoon session which usually is not on the same day as the morning session. In only one store do the pupils receive in addition 2 hours of work on store practice under store instructors. Of the 900 pupils involved only 45 per cent attend the full 8 hours. This matter should be remedied.

**Classification.** The pupils are classified fairly closely into seventh, eighth and high school grades, and pass from one teacher to another to receive instruction in the special subjects. The completeness with which this is done depends upon the number of pupils in the store, varying from the Wanamaker organization which with its 400 pupils is able to carry out the plan in minute detail, to the Kirschbaum organization

which has so few pupils that gradation and specialized subject teaching are impossible.

**Instruction.—Conditions.** The textbooks and methods of instruction are satisfactory. The number of pupils in a class is kept well equalized and is not excessive. The environment encourages motivating class work by frequent use of concrete experiences in the store, and some such motivation is done. The rooms are in general cleaner, better lighted, more cheerful and less crowded than are ordinary school rooms.

**Personnel, Program and Training of Teachers.** Since all of these classes are annexes of the central Hollingsworth school, the teachers are included in the comment made on that school. They are evidently a carefully selected group, their teaching experience, preliminary training and subsequent training ranking far ahead of the average group of continuation teachers. This fact is reflected in the uniformly excellent instruction given in all store classes. Since, however, no time is devoted to follow-up work in the store, the classroom instruction lays too much stress on routine academic instruction and fails to utilize to a sufficient degree the splendid possibilities of tying up class work with store practice. The remedy, briefly, is to depend less on suggestions from textbooks and to make greater use of the Federal Board bulletins on retail store practice and on the methods and materials so successfully used by the Prince School of Training. Every pupil should be required to attend class 8 hours a week and the additional 2 hours should be used on the line of work just suggested.

**Miscellaneous.** Difficulties of attendance practically disappear and the coöperation of employers is assured in this type of class. If the central continuation schools were offering the variety of prevocational opportunity which they should offer, an argument could be made to the effect that large numbers of the children, especially the boys, are in store employment and in store classes as a temporary experience, that they will enter other lines of work after they are sixteen years of age, that the rush of seasonal trade causes the number of pupils in these classes to fluctuate with consequent transfer to other continuation schools and that, therefore, these pupils should be assigned for part or all of their school time to classes in the central schools which will start to prepare them for their probable future work.

**Organization and Program in Factories.** Classes are maintained in 5 factories for approximately 450 pupils. These classes are under the supervision of the principal of the elementary school of the district in which they are located. In general, pupils are classified as seventh or eighth grade pupils. Ten per cent of these pupils attend school only

6 hours a week because no shop work can be provided for them. The other pupils receive 6 hours of the usual academic instruction and 2 hours of shop work. In two of the schools this is the regular cooking or sewing for girls and manual training for boys. In 2 others it is approved instruction on the next job or jobs in the line of promotion, given in the factory by competent foremen instructors. This type of shop work is highly commendable and the plan should be extended wherever possible. It should, however, be more closely supervised by school authorities. There is great likelihood that as time goes on this type of shop instruction will be more extensively used, and from the very beginning insistence must be laid on the use of approved, trained, and competent foremen instructors and on close supervision by public school authorities.

**Instruction Conditions and Personnel, Program and Training of Teachers.** These approximate so closely those found throughout the continuation schools maintained in elementary school districts that no further comment is needed.

**Miscellaneous.** As in the store classes, difficulties in attendance are reduced to a minimum and the coöperation of employers is assured.

The isolation of the teachers in these factory classes has in it an element of weakness. The supervision from the principal of the elementary school district is very slight, the teachers have no opportunity for association with other teachers in the same line of work. As regards pupils, the advantage of convenience in having the class located in the factory and of having school work tie up to a certain extent with the present job is offset by the fact that in many cases the pupil considers the job as temporary and could, if proper equipment were provided, obtain a valuable prevocational experience in a central continuation school. Such an arrangement should be considered when the central schools are properly equipped. For the immediate future these factory classes should be considered as outlying classes of the central Hart School, should be closely supervised from that school, and the teachers should be included in teachers' meetings and closely associated with the other activities of the Hart School.

### CENTRAL CONTINUATION SCHOOL CLASSES

**Organization and Program.—Attendance and Grading.** The three central schools, the Hart, the Hollingsworth, and the McCall, indicate a growing and commendable tendency to provide for the continuation pupils central housing and special organization and facilities for carrying on the work. Approximately 47 per cent of all the continuation pupils in the city are now housed in these three schools. All attend the

required eight hours per week, practically all of them attending a four-hour session twice each week. The pupils are placed in classes graded closely on seventh grade, eighth grade, and high school standards. In two of the schools boys and girls with few exceptions are in separate classes.

**Instruction Conditions.—Subjects and Methods.** The required standard subjects are taught, the time allotment for each subject is good, the textbooks are well chosen. All of the academic teachers plan unit lessons, and conventional textbook instruction is reduced to the minimum. Most of the academic instruction is arranged departmentally by subjects, one teacher specializing in English, another in civics, etc. This plan has the advantage of giving the pupils a change of instructors and an opportunity of receiving expert instruction. It has the disadvantage of bringing each teacher into contact with so many different pupils for a short period of time that it is difficult, if not impossible, to do effective individual work. The importance of this fact is increased because the classes are too large, averaging between 25 and 30 pupils per class and in many classes running over 40. Effective individual work is impossible under these conditions. The first essential to remedy this situation is more classrooms. As long as the number of classrooms remains as it is, it is impossible to avoid this serious overcrowding.

**Practical Arts Work.** All pupils receive two hours per week of shop work, cooking or sewing for the girls, and wood working for the boys. A step in the direction of providing more varied shop work is indicated in an additional sheet metal shop in the Hollingsworth School and an electrical shop in the Hart School. The shop accommodation, however, is pitifully meager. At the Hollingsworth, lack of enough shops prevents an individual pupil from receiving a full year of shop work, the sheet metal shop lacking even the simplest bench equipment. When each of ten eager boys is impatiently awaiting his turn to use the single available soldering iron, one looks at the instructor who inspired that desire in the boys, and at the boys who are so ready to be taught and deplores the lack of a few hundred dollars worth of equipment and supplies that would so greatly facilitate the instruction. The mechanical drawing equipment and the electrical shop in the Hart School are good, but they are only a fraction of what is needed. Machine tools, wood and electrical and metal stock, shops for a half dozen other activities are needed. The equipment for the girls' work is better than for the boys, that in the Hart School being very good. Commercial work is practically limited to bookkeeping work at the Hollingsworth. Typewriters, office appliances, and facilities for teaching the elements of office routine are needed.

**Comparison with Other Cities.** Continuation school teachers are almost unanimous in their agreement that mass numbers of pupils are necessary in order to justify a variety of household arts, commercial, and industrial opportunities, and to justify the equipment which is necessary to make these opportunities adequate. Milwaukee, through central housing, is able to offer no less than 50 types of work to its continuation school pupils; Boston offers 15; Reading offers at least 6. But so long as Philadelphia continuation schools are scattered among more than thirty elementary and high schools, the pupils so scattered are of necessity restricted to sewing and cooking for girls and to conventional wood working manual training for boys, with the result that one-third of this group do not have any shop opportunity.

**Needed Changes.*** Eventually most of the outlying elementary classes should be transferred to the central schools. In the few cases where transportation difficulties would make this inadvisable the outlying school should be recognized as being part of the organization of the central school, to be supervised as such and to be kept in close touch with the central school. The entire building of the McCall School ought to be used for a big central continuation school with varied shops, abundant equipment, adequate facilities for vocational and commercial work for boys and girls. Enough pupils should be transferred from the Hollingsworth to the McCall to remedy the overcrowded conditions and to furnish sufficient shop and commercial rooms at the Hollingsworth to provide a reasonable opportunity for the children who attend there. The development of these three central schools is a step in the right direction, a big step when compared with what is being done elsewhere in the city, but a very small step when compared with what ought to be done in Philadelphia and what is being done in other cities which have only a fraction of Philadelphia's wealth and population.

**Personnel, Program, and Training of Teachers.—Attitude of Teachers.** Almost 60 continuation teachers are assigned to these three schools, most of them having comparatively long experience in this work. As a group they have had more special training than teachers in the other continuation schools, 19 of them having had preliminary training and 22 of them subsequent training. The opportunity for teachers' meetings, for intercourse with one another, for supervision, result in an *esprit de corps* which is noticeable and which furnishes a strong argument for the same kind of opportunity in other schools.

**Coördinators.** An interesting development is the recent assignment to each of these schools of a special coördinating teacher, whose

* See Addenda.

function is to study general employment conditions, follow up individual pupils, and make the work of the school function more directly in adjusting pupils to employment conditions. All of this is very good. A coördinator, however, can transmit to another teacher only facts, not impressions. And it is the personal impression which is needed to accomplish effective vocational guidance and to convert information obtained from the employer into instructional material for the classroom. The next step in this good work should be to assign a definite part of each teacher's weekly roster to follow-up work. Two half days each week is suggested as a suitable assignment.

**Miscellaneous.** A comparison of the scattered elementary school groups, the scattered high school groups, and the centralized groups invariably reveals the advantages of the central school. Mass numbers of pupils and of teachers give opportunity for better grading, variety of shop experience, flexibility of teachers' roster, correlated and concentrated methods of dealing with employers and parents, close supervision of work, assembly of pupils, extension of guidance in recreational activities and profitable use of leisure, and the chance for each pupil to discover his own aptitude.

These schools are by no means satisfactory as regards conditions of housing, shop equipment, numbers in classes, and coördinating and placement work; but they are such a decided improvement over the other schools that the contrast is refreshing. Further, it is practically impossible to change conditions in the other schools since their chief function is to care for another group of pupils. But the central school has only one function, namely, to do the best possible work for continuation pupils. Therefore, the only limit to their capacity for excellent service is that imposed by inadequate equipment for their special work.

### THE GIRLS' TRADE SCHOOL CLASSES

This is a special class for girls providing trade extension work for the fourteen to sixteen-year old workers of one shirt factory. It was inaugurated at the request of the forewoman and the course each week consists of four hours of academic and related work and four hours of power machine operating. Twenty-five girls are enrolled, of which one group of 12 attends eight hours on Tuesdays and another group of 13 attends eight hours on Fridays. The power machine plant is fairly equipped with plain and special machines, the housing is adequate. The academic and shop teachers are competent, the supervision is close and adequate, the subject matter and methods of instruction are good.

The number of pupils at present involved is so small that the subject may be dismissed with no further comment than to call attention to the

fact that the annual tabulation of the Bureau of Compulsory Education shows that in Philadelphia 156 workers, fourteen to sixteen years of age, are employed in clothing manufacture, and more than 3000—say, 30 per cent of the entire population of juvenile workers—are employed in textile, knitting, hosiery and dyeing manufacture. It is very evident that the success of this class in the Girls' Trade School and the experience derived from its operation should be applied to plans for furnishing, through continuation school shops or through approved training classes in the factory, a great deal more vocational instruction for this large group of young workers.

### HIGH SCHOOL CLASSES

**Organization and Program.—Assignment of Teachers.** Continuation classes for pupils of high school grades are maintained in eight of the regular high schools. The general organization in each of these is that the principal places a head of department or responsible person in charge of the entire work and then assigns the class instruction to any one of the entire corps of teachers, whose roster permits of such assignment. In general, an English teacher teaches English, a civics teacher teaches civics, and so on. In each high school the work is carried on in the way which seems to fit most suitably into the other regular work of the high school. Consequently no two high schools carry on the work in precisely the same manner. Nine hundred and sixty-eight of the continuation pupils of high school grades are handled in central continuation schools. The remaining 1765 are handled in the eight high schools mentioned.*

**Assignment of Pupils.** Quite a variation exists in the method of assigning pupils to class. Two schools make no distinction, two schools grade pupils as low and high, one school maintains classes showing four different grades of advancement and three schools make distinction between those who elect manual work and those who elect commercial work. One of the girls' schools allows the choice between household arts and commercial work. Only in exceptional cases are pupils transferred from one type of work to another. The usual procedure is to promote the pupil to a slightly more advanced class, when a pupil's ability or the length of his stay in the school warrants such promotion.

**Attendance.** In none of the eight high schools do the pupils receive the full eight hours per week of instruction required by law. All but two of the schools break up the assignment of the individual pupil, so that the pupil attends half the time on one day and remainder of the time on another day. One school arranges for continuation pupils to attend the

* See Addenda.

general assembly of the school. Another arranges a special assembly for continuation pupils. The remainder of continuation pupils have no opportunity for assembly.

**Instruction Conditions.—Courses and Textbooks.** In general, each high school builds its own course. The tendency is to give a pupil one period of English, one period of mathematics and two periods of manual training or of commercial work on one day and then repeat that program on the other day of attendance. Three schools use regular high school texts and depend largely upon textbook instruction. One school uses the regular high school texts with some special texts for continuation pupils. Three schools build their own lessons, and one school uses the regular continuation school texts as a basis and on these builds lessons on the weekly unit plan. That is, each school is a law to itself in this matter.

**Size of Classes.** The number of pupils in a class is uniformly high, ranging from 30 to 48 pupils. Manual training and commercial classes are usually one-half this size. Of course individual instruction is impossible under these conditions. It is very evident that in each school an earnest attempt has been made to do the best thing possible for the continuation school pupils, but the fact is that these pupils do not fit into the usual organization and teaching program of the high school. Consequently the schools have been compelled to do not that which was best for the pupils, but that which was possible under the circumstances. Especially in the three girls' high schools is the spirit of teachers and continuation school pupils commendable.

**Personnel, Program and Training of Teachers.—Attitude of Teachers.** The teachers in general are assigned to this work on the basis that the regular pupils must be cared for first and that the undesirable assignment to the continuation groups should be redistributed from year to year. The principals and the department head or other responsible person in charge strive conscientiously to do the best thing possible for the continuation groups; the teachers who escape this assignment are likely to be grateful for the fact; and the teachers who receive the assignment go at it with a grim humor which indicates that since that is part of their job they will do their best to carry on the work successfully. Here and there is a teacher who really likes the work. All these conditions are more marked in the boys' schools than in the girls' schools. In the William Penn High School and in the Kensington High School a fine spirit prevails among and toward the continuation girls. In consequence much excellent work is done there. And in the Northeast High School for Boys a similar condition prevails. The fact that the other schools handle smaller numbers of continuation pupils

and do not offer so much practical arts work is undoubtedly responsible for much of this contrast. At the Frankford High School the continuation group has practically no contact with the rest of the school. The group is housed in a separate building, the surroundings are not attractive, no practical arts work is offered. The isolation of the special teacher and of the group is complete.

**Preparation of Teachers.** There are 1765 continuation pupils in the high schools; but the instruction is distributed to such an extent that of the approximate 90 teachers concerned, one-half give only four periods or less per week to this group, and only 2 teachers were found who give more than 10 periods per week. The total continuation school service rendered by these 90 teachers is equivalent to the full time of 23 teachers The result is inevitable. The amount of time which teachers, in justice to the other larger group of pupils, can devote to special study and preparation for continuation work, is reduced to an ineffective minimum. With the exception of the teacher of the Frankford group, not a single teacher was found who had had either preliminary training or subsequent training for this special work.

**Miscellaneous.—Attendance.** The high schools unanimously reported excellent coöperation on the part of attendance officers, but these officers are so burdened with extent of territory which they must cover that there is often delay in following up individual pupils. In addition, the peculiar attendance problem of the continuation group, due to the part-time attendance, does not articulate easily with the regular attendance problem. In consequence, an undue amount of effort is needed to check up the continuation group, which effort would not be necessary in a school of which the primary function is to handle the continuation group.

**Employers and Parents.** The contact of employers and of parents with the school is in general so slight that the report naturally follows: as regards employers, the coöperation is either passive or less; as regards parents, they obey the law and have no further interest in the matter. In two schools where specific effort was made to elicit the interest of employers the response was generous. This indicates that coöperation may be won if the responsibility for obtaining such coöperation is made a definite function of the teachers or of a coördinator.

**An Exception.** One very exceptional situation was discovered in the Disston District where a small number of high school continuation pupils are not attending school at all on the ground that there is no high school class located within two miles. This application of a law, which undoubtedly was intended to refer to the difficult transportation con-

ditions of rural districts, to an urban community, with frequent trolley car service, seems to lack justification.

**Practical Work.** The prevalent lack of opportunity for prevocational or vocational training for continuation pupils in the high schools is the chief cause for present unsatisfactory conditions. The tendency to give the continuation pupils access to school shops only after the regular pupils have been cared for is natural and inevitable under the present organization, but it results in debarring them entirely from the shops in some schools, and in limiting them to a little conventional woodworking manual training in others. The dearth of machine tool equipment in practically all of the school shops is a misfortune for the regular pupils, but it is even more serious for the continuation pupils who should be trained in at least the elementary factory methods of production.

**The Remedy.** The widespread feeling among principals and teachers agrees with the experience of other communities where the plan has been tried, that the group of continuation pupils of high school age should be gathered in a central continuation school or schools, where mass numbers, adequate and varied shop equipment and a specially trained corps of teachers, could provide a much more satisfactory solution of the problem of adjusting these young workers to that place in the industrial or commercial life of the city where each is best suited.

**The Teacher Problem.—Increased Numbers.** The average number of pupils per class is 26,* excluding from consideration the classes conducted in high schools, where the average is higher. This average means nothing of itself, but in comparison with a reasonable average of 20, it indicates an undue number of classes ranging from 35 to 45 pupils. Every such class should be cut in half, in the central schools, and as rapidly as the outlying schools can be consolidated the numbers in class should be reduced. This will require 20 additional rooms, will increase the number of academic teachers from 70 to 90 and will require a corresponding increase in the service of supplemental shop teachers, amounting to about 18 full-time shop teachers. That is, whereas the continuation school now has the services of the equivalent of approximately 112 full-time teachers, it should have the equivalent of approximately 150 full-time teachers.

**Need of Teacher Training.** That many teachers have not met the standard of training which is required elsewhere in the State is indicated by the following tabulation. Further, the harmful tendency to increase the number of teachers not trained for the special problems of continua-

* See Addenda.

tion school work is shown by a comparison between teachers devoting full time to continuation school instruction and teachers devoting part time to this work.

| | |
|---|---|
| Of 80 full time practical arts and academic teachers | 39 per cent had preliminary training<br>34 per cent had subsequent training |
| Of 115 full and part time teachers | 28 per cent had preliminary training<br>24 per cent had subsequent training |
| Of 205 full, part time, and high school teachers | 15 per cent had preliminary training<br>13 per cent had subsequent training |

The necessity of having teachers specially trained for this work is the most important single item connected with continuation schools. The method of instruction, the selection of teaching material, and the attitude of teachers toward the work are vitally dependent on proper training. The figures just given show the urgent need of having teachers take training courses.*

**Salaries.** The salaries of continuation school teachers in relation to the salaries of teachers in other types of schools as adopted March 9, 1920, are summarized below.

**Philadelphia Salary Schedule—March 9, 1920**

| High Schools. | Minimum Salary. | Maximum Salary. | Years Required to Attain Maximum. |
|---|---|---|---|
| Male teachers: | | | |
| Class D | $2,740 | $3,140 | 5 |
| C | 2,140 | 2,540 | 5 |
| B | 1,640 | 2,040 | 5 |
| A | 1,240 | 1,540 | 5 |
| Female teachers: | | | |
| Class D | 2,038 | 3,140 | 10 |
| C | 1,756 | 2,540 | 10 |
| B | 1,373 | 2,040 | 10 |
| A | 1,040 | 1,540 | 10 |
| *Grammar Schools:* | | | |
| Male teachers | 1,175 | 1,800 | 9 |
| Female teachers | 1,000 | 1,800 | 11 |
| *Junior High Schools:* | | | |
| Male teachers | 1,640 | 2,040 | 5 |
| Female teachers | 1,506 | 2,040 | 7 |
| *Continuation Schools:* | | | |
| Male teachers | 1,450 | 2,050 | 7 |
| Female teachers | 1,200 | 2,050 | 11 |

A salary schedule for continuation school teachers should bear such relation to the schedule of teachers in other schools which draw teachers from the same source of supply as to provide adequate financial inducement for competent teachers to undertake continuation school work and to remain in it with a reasonable degree of permanency.

* See Addenda.

A comparison in the foregoing schedule of continuation minimum and maximum salaries and the period of years required to advance from the minimum to the maximum involves three other groups, male and female, namely: (a) Grammar Schools, (b) Junior High Schools, (c) High Schools, Class B.

Without regard to the number of hours per week of service required, the present schedule enables the continuation schools to attract the best teachers of the grammar school grade, but it fails to permit the continuation school to compete with the junior high schools and with Class B of the high schools.

Although most of the pupils—approximately 75 per cent of the continuation school enrollment—are of the seventh and eighth grades, nevertheless the pupils involved are essentially of secondary school age and characteristics. That is, the continuation school is an intermediate school or secondary school rather than a grammar school. Accordingly the qualifications and salary of teachers should be set by reference to intermediate and secondary school standards.

The tendency toward centralized housing which has already proceeded to the point where approximately 47 per cent of the continuation school children in Philadelphia are so housed, with the recommendation that this tendency be carried further, accentuates the fact that the continuation schools should draw teachers from the same sources as the junior high schools and the lower grades of the high schools. Accordingly the salaries, especially on the minimum rating and on the annual increment, should be approximately equal.

As regards hours of service per week, the time devoted by continuation school teachers to follow-up or coördinating work should be counted as hours of class instruction. It is administratively desirable, where possible, to combine two closely related schedules into one, and to place the continuation teachers on the same salary schedule as the junior high school teachers.

Unless such equalization of salaries is made, the continuation schools will suffer because a high minimum salary, a more rapid increase in salary, and the more comfortable conditions of junior high school and high school work will constantly attract desirable teachers away from entering upon continuation school work.

The lack of men teachers in continuation schools, to which reference was made in another part of this report, is closely associated with the salary schedule. The majority of pupils in the continuation schools are adolescent boys and they should come under the influence of men teachers. With the increase in prevocational and vocational work should come a large increase in the number of men teachers.* In this connec-

* See Addenda.

tion, sufficiently large salaries must be offered to attract to the continuation schools men competent to give good shop instruction, of personality to influence and lead adolescent boys, of education sufficient when supplemented by suitable training courses, to give instruction in related academic subjects.

**Housing Conditions.** This section deals with housing conditions only as they apply to continuation classes. Full detail on housing is given in the chapter on School Plant, Vol. I.

The continuation class is usually housed in the same kind of classroom as the other classes in the building. But in the Brooks, the Disston, and the Marshall schools the class is housed in a portable building in the yard, heated by the standard type of large stove or furnace, and lighted and ventilated from windows on one side. This means irregular heat and drafty ventilation. Since most of these classes are detained until the late afternoon the question of artificial light is important. In only 7 of the 19 buildings used is the artificial light good. In the others it ranges from fair to poor, that is the pupils are subject to eye strain and annoyance, especially where the light comes from flickering gas jets. Specific cases needing immediate improvement are the McMichael-Mantua, Pierce, Breck, Keyser-Meehan Annex, Jones Annex.

There are three central continuation schools, the Hart, the McCall-Binney, and the Hollingsworth. They are old buildings but reasonably satisfactory excepting that the natural lighting and the ventilation in the Hollingsworth are very bad.

The elementary school shop rooms are the manual training, cooking and sewing rooms regularly used by elementary school pupils, and used part of the time by continuation classes. Except as noted below, they serve their purpose. The manual training room in the Landreth is poorly lighted and crowded, in the Longfellow it is a poorly ventilated basement room, in the Sheridan the bench equipment is below standard.

The classrooms in the high schools are the same as those occupied by regular high school pupils and in general are excellent. For detail on shops, see the chapter on Industrial Education. At Frankford High School the pupils are housed in an old brick building in the corner of the yard. The general physical conditions are not bad, but it is a dreary place, and the heating from a big furnace is irregular and unsatisfactory. At Central High School an abandoned laboratory room used for recitations, is badly lighted and dismal.

All store classrooms are very good, some of them being much more cheerful than the standard classrooms provided in the school buildings.

Factory classrooms are good, with the exception of one in which light and ventilation are poor.

**Vocational Guidance and Placement.** The detailed discussion on this topic is given in the chapter on Industrial Education, Parts IV, V, and VI. So far as activity along this line concerns continuation schools, it is confined to the efforts of coördinating teachers, one in each of the three central continuation schools; to the efforts of a counsellor in a high school who may or may not attempt to furnish service to the continuation school pupils; and to the efforts of the Junior Employment Service in which the White-Williams Foundation coöperates with the Bureau of Compulsory Education.

One of the most important functions of the continuation school is to guide the pupils in their problem of determining what their permanent type of employment shall be. These children are already in contact with the realities of life. Economic and social forces as well as the habit of the children tend to make their present jobs temporary and shifting. Sane, practical, constructive guidance is needed, and a knowledge on the part of the teacher of all the facts involved is essential. The most effective way to acquire this knowledge is to make follow-up visits to the places of employment and the homes. Special coördinating teachers perform an essential function in establishing cordial working relations with employers and in making occupational analyses for the use of all teachers. But while coördinating teachers can transmit certain facts to the class teachers and can correlate and direct the general work in this field, they cannot transmit impressions and first-hand knowledge. To obtain these essential factors it is necessary for each teacher to make personal follow-up visits. The time which a teacher devotes to this work is just as much a part of continuation school instruction as the time spent with the class. Accordingly a definite assignment on each teacher's roster should be made for this purpose. The New York State plan recommends that every teacher be required to devote at least one-fourth as much time to visitation, placement, and follow-up work as such teacher devotes to actual teaching. The New Jersey plan recommends that the program be so arranged that certain teachers can devote several hours per week to visiting pupils at their work and in their homes on the ground that this is necessary in order that the instruction may be adapted to individual needs and that teachers may advise children and parents intelligently in regard to training and employment. The experience of Massachusetts, Detroit, and Milwaukee bears out these recommendations. Accordingly the beginnings which have already been made in connection with the White-Williams Foundation and the assigning of a coördinating teacher to each of the three central schools should be extended until every continuation school teacher in the system is performing definitely assigned duties in this field.

The annual report of the Bureau of Compulsory Education gives a classification of continuation school children according to types of employment. With due regard for the fact that large numbers of these children go into other occupations between the ages of 16 and 20, this tabulation indicates the lines of work where stress should be laid in vocational guidance and in utilizing the instructional content of the present job for the motivating of class work.

**Coöperative Organization.** The success of continuation school work depends to such a degree on a close tie-up with commerce and industry and on the furnishing of proper facilities for prevocational and vocational work for boys and girls, and home economics work for girls, that it is necessary to have close coöperation between the directors or supervisors of these special subjects and the Director of Extension Activities who has charge of the continuation schools. A similar relation must exist with the Bureau of Compulsory Attendance and with the Department of Guidance.

Each of these special departments has functions which do not concern continuation school pupils, but all these are of such a kind that the six departments can head up to a single associate superintendent who should have general charge of all matters pertaining to the task of preparing pupils to choose and enter upon their line of employment.

The relation of these experts to the director in charge of continuation schools should be precisely their relation to the one in charge of junior high schools. They should render expert assistance in the matter of training teachers or other workers, planning and providing equipment, laying out courses of study, and supervising work in their respective fields.

In addition, the Director of Extension Activities needs an assistant director and some supervisors to help on detail connected with the continuation schools.* Some of the points which need immediate attention are the following: (a) a reorganization of the entire geographical distribution of continuation schools, (b) plans for centralizing all housing as rapidly and as completely as possible, (c) the purchase and installation of adequate shop equipment with the assistance and approval of the Director of Vocational Education, (d) the laying out of suitable courses of study for such shop work, (e) organizing and conducting courses of improvement training for all continuation teachers, full time or supplemental, now in service, (f) seeking out and training through preliminary courses other teachers for continuation classes, (g) giving

* See Addenda.

adequate supervision to classroom instruction, especially in the scattered elementary school classes.

**Internal Organization for a Continuation School.** A résumé of the points established heretofore indicates that a proper form of organization for each central continuation school in Philadelphia will approximate the following:

**Housing.** A separate building or buildings, equipped with assembly room, classrooms, shops, library, and offices, with adequate furniture, equipment and supplies, and provision for recreation and physical training.

**Equipment for Practical Work.** Determined only after a careful survey of local industrial opportunities but in general providing at least three varieties of work for boys and three for girls in each of the fields of trade and industrial, commercial and household arts work. Equipment should be of standard commercial or factory design, capable of turning out products of marketable standard. Experience has shown that very satisfactory results are obtained from equipment providing for the following courses:

| | |
|---|---|
| Trade and Industrial | Automobile ignition and repairs.<br>Sheet metal work.<br>Machine shop work.<br>Woodwork.<br>Printing and book binding.<br>Electricity.<br>Elementary drafting.<br>Power machine operation. |
| Commercial | Bookkeeping.<br>Typewriting.<br>Office Machine Practice.<br>Junior business training. |
| Household Arts | Clothes (including sewing and millinery).<br>Foods (including cooking and serving).<br>Home nursing. |

**Administration.** A principal devoting full time to administration, in close and coöperative contact with the issue of employment certificates, vocational guidance, junior employment, and other related activities. Adequate assistants to the end that supervision of instruction and the maintenance of helpful relations to both boys and girls be assured. Generous assignment of clerical assistants as clerical work is especially heavy in a continuation school.

**Instruction.** Teachers specially trained both for continuation school work and for their respective subjects whether academic, trade and industrial, commercial, or household arts. So far as possible men teachers for boys' classes and women teachers for girls' classes.

**Teachers' Program.** Not more than six hours of instruction in one day nor more than twenty-six hours in one week, with from four to six hours additional preferably on two half days, devoted to coördinating and follow-up work at the pupil's place of employment or home.

**Classification of Pupils.** Provision through an adequate preliminary interview or by assignment to an entry or reservoir class whereby a pupil may be assigned to that class which most nearly meets his present needs and probable vocational preference. Subsequent transfer to another class for approved reasons freely permitted.

Boys and girls should be in segregated classes. The capacity of the pupil as indicated by the grade completed, or other proof, the vocational preference of the pupil, and the convenience of the employer must all be considered in making class assignments. Under this arrangement pupils are classified absolutely by sex and very closely by vocational interest and by school grade.

**Allotment of Pupils.** Instruction to be successful must be largely individual. Therefore not more than 20 pupils should be handled in one class. With the Teachers' Program as indicated above, one teacher is needed for each 65 pupils enrolled.

**Schedule of Subjects.** An approximate assignment of time for each subject, with provision for departmental instruction is indicated in this schedule for one class or one pupil.

| Teacher. | Hours. | Subject. | Approximate Time, Minutes. |
|---|---|---|---|
| Miss A. | 8–10 A. M. | English | 40 |
| | | Vocational Guidance and Occupational Analysis | 40 |
| | | Current Events | 40 |
| Miss B. | 10–12 A. M. | Industrial Geography | 40 |
| | | Hygiene and Recreation | 40 |
| | | Civics and Music | 40 |
| Mr. X. | 1–3 P. M. | Mathematics | 60 |
| | | Drawing | 60 |
| Mr. Y. | 3–5 P. M. | Prevocational or Vocational Work | 120 |

Suggestive courses of study for the subjects listed are issued by the Bureau for Vocational Education of the State Department of Public Instruction and can be obtained on application.

**Organization for Instruction.** A rigid prescription for organization defeats the very aim of the continuation school which is to meet ade-

quately the needs of the individual pupil. Accordingly courses of study, assignments of time, and classification of pupils should be considered as tentative and suggestive rather than as rigid. Four plans of organization for instruction should be considered. Each plan has its advantages and its disadvantages.

1. The pupils are grouped according to the grades at which they left school to go to work. Except for their shop work they receive all their instruction from one teacher. This plan provides a group of similar academic ability and limits the number of pupils which a single teacher must know. Its disadvantage is that since the tendency is to lay stress on the academic work of that grade the pupils become fatigued and lose interest and it is difficult to motivate the work.

2. Under the second plan the pupils are classified by school grade and meet in a home room, but pass to different teachers who specialize in arithmetic, English, hygiene, etc. That is, the work is departmental by subjects. There is a tendency under this plan to overcrowd classes and to teach the subject rather than the child. The teacher handles so many different pupils in the course of a week that the individual pupil's identity is lost, and the motivation of work is small.

3. The third plan groups the pupils according to their vocational interest in employment or in the school shop. Under this plan it is very difficult to grade them according to previous schooling, so that varying degrees of ability are found among the pupils. On the other hand the motivation of the work is very successful.

4. The fourth plan groups the pupils according to vocational interest for four hours of instruction in shop work and related mathematics, drawing and perhaps science and hygiene. This instruction is given by shop teachers and related subject teachers, and the work is motivated by the individual interests of the pupils. During the other four hours the pupils are grouped as closely as possible according to school grade completed and pass to different teachers who specialize in the general or cultural studies such as English, civics, industrial geography and history, general science, free-hand drawing. These subjects are motivated by the general or group interests of the pupils.

**Vocational Guidance and Placement.** This work should be in charge of a person thoroughly trained for placement work, for coördinating, for vocational guidance, and for the analysis of occupations to determine their instructional content and local importance. Such a person should direct and coördinate the follow-up work of the individual teachers and the class instruction in vocational guidance and occupational analysis. In order that the coördinator may be in touch with actual classroom conditions it is advisable to have the coördinator do some teaching.

**Costs.** On the basis of 288 pupil-hours per year for each of 10,000 children, the annual budget of approximately $185,000 indicates a pupil-hour cost of $0.064 of which the State reimburses $0.021. Milwaukee and Boston provide at least twice this pupil-hour cost. The annual per capita cost in Philadelphia is approximately $18.50. Yet if these children remained in day school they would cost the city more than three times as much, an average annual per capita of $61. These children personally earn as wages, and through their families distribute between four and five million dollars each year. That is, they are already giving back to the city more than twenty times as much as they receive.. Restrictions on the training given to these children now will result in restrictions on their producing and purchasing power ten years from now. Every manufacturer, merchant, landlord, and institution in the city will be benefited if the earning and producing capacity of these children as adults can be increased. Accordingly ordinary consideration for these pupils should provide them with adequate rooms, sufficient equipment and enough teachers. The cost does not fall entirely upon the city since reimbursement is made from State and Federal funds to the amount of more than $70,000 annually.

## RECOMMENDATIONS

**Administration.** 1. The number of full-time teachers should be increased from the present equivalent of 112 to approximately 150. Such addition is necessary to reduce classes to a size where individual instruction is possible, to enable teachers to carry on the important follow-up work, and to eliminate untrained supplemental teachers. The number of teachers (125) giving part-time service should be greatly reduced.

2. The number of groups or centers (43) should be reduced as rapidly as possible by assigning to central schools pupils now enrolled in 21 elementary and in 8 high schools. In addition pupils should be withdrawn as individuals or in groups from 10 store and factory classes if they can be better served in a central school. Transportation difficulties will prevent the entire elimination of widely dispersed centers.

3. Opportunities for practical work are now offered in approximately 65 per cent of the 43 centers. An immense amount of able planning on the part of school officials was required to attain this figure. There is little prospect of any increase under the present geographical distribution of pupils. Yet all the pupils should have this work. The remedy is stated in the preceding paragraph.

4. Pending the time when consolidation can be accomplished, the isolated and widely dispersed teachers should receive more supervision. This necessitates supervisory assistants for the Director of Extension Activities.

**Types of Classes.** 5. A cumulative health record and previous school record card for each pupil should be forwarded to the continuation school.

6. At once all pupils should be required to attend the full eight hours per week required by law. Thirty-four per cent of the entire group now attend less than eight hours.

7. Additional classrooms should be provided to reduce the number of overcrowded classes.

8. Variety of practical arts work is needed and can be provided in the larger schools.

9. Where classes are held in stores or factories some excellent work is being done in tying up the class work with the experiences and materials of the store or factory. More of this type of instruction should be given.

10. The present tendency toward centralized housing should be carried on until practically all the continuation pupils are in central units of not less than two thousand each, and these central units should be well equipped. The entire McCall building should be devoted to continuation classes, with adequate household arts, shop, and machine tool equipment, commercial rooms, assembly, gymnasium and recreation facilities. The equipment in the Hart School should be expanded along similar lines. All high school classes of continuation pupils should be removed from the eight scattered high schools, be concentrated in or near the Hart, the Hollingsworth, and the McCall centers, be provided with adequate shops and commercial rooms, and be handled as distinct high school groups.

Overcrowded classes in the Hollingsworth center should be relieved by removing all boys to the McCall center and making the Hollingsworth a girls' school.* Well equipped rooms should be provided for commercial work and home economics.

11. More stress should be laid on vocational guidance, placement work, coöperation of employers and parents, and motivating class instruction through using the instructional content of employment, home, and school shop experience. The method is to assign each teacher to from four to six hours per week of follow-up work, and to extend the number and the functions of the three coördinating teachers now in service.

12. As rapidly as possible the ruling should be enforced that every teacher, academic or shop, must have preliminary training for continuation school work before beginning service and must carry on subsequent training.

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* See Addenda.

The urgent need for such a ruling is indicated by the fact that only 15 per cent of the 205 teachers engaged in this work have had special training for the work.

13. The continuation school salary schedule should be the same as the junior high school salary schedule.

**Housing Conditions.** 14. In most cases the accommodations are as good as those provided for other pupils. Those cases of unsatisfactory light, heat, or ventilation mentioned in the body of the report should be remedied as soon as possible.

**Vocational Guidance and Placement.** 15. The good beginnings which have already been made in guidance, placement, and coördinating work should be extended until every continuation school teacher is performing definitely assigned duties in this field.

**Coöperative Organization.** 16. The persons in charge of industrial education, home economics, commercial work, guidance, and compulsory attendance should have such relations with the Director of Extension Activities that their expert assistance in providing courses of study and equipment for pupils and in training and supervision for teachers may be available for continuation schools.

**Internal Organizations.** 17. The detailed plan for the organization of central continuation schools as recommended in the body of the report should be followed.

**Costs.** 18. The continuation school pupils of Philadelphia are entitled to an increased expenditure of funds for their education, to the end that they may be provided with adequate housing, good and varied equipment, and sufficient teachers.

**Past Accomplishment and Future Extensions.** Those in charge of continuation schools started in 1915 with more than 20,000 children to be brought in and cared for in schools already overcrowded, with no previous experience as a guide, handicapped by lack of money, lack of equipment, lack of sympathetic understanding on the part of educators, employers, and parents. In the five years which have elapsed since that time the emergencies created by the World War have been met; the 20,000 have been reduced to 10,000 and the 10,000 have been housed; the attendance problem has been handled well; the attitude of the children has been improved tremendously; shop work has been introduced until now the majority of the children have shop work of some kind; the pupils who at first were scattered all over the city have been centralized in increasing numbers until now 47 per cent of them are so housed; the attitude of employers and parents has improved.

Among those engaged in this work there is a fine *esprit de corps*. Courses of study are good and are being improved, textbooks are well chosen and better books are coming on the market, the beginning of definitely delegated duties, of coördinating work, of varied shop work, of centralized control, have all been made. It is only the reasonable extension of those beginnings which is recommended in the foregoing conclusions.

It is, therefore, with a sincere appreciation of the magnitude of the task which was undertaken in 1915 and of the tremendous amount of good work that has been done towards completing that task, combined with a conviction that those responsible for the continuation schools in Philadelphia will be in accord with these findings, that this report is submitted.

## ADDENDA

1. The facts on which this survey is based were collected in October and November of the year 1920. The observer was necessarily restricted to a consideration of the facts portrayed in a "still picture." Even then, however, the picture was in motion. Harmonious working relations between those in charge of continuation schools in Philadelphia and the officials of the State Department of Public Instruction were effecting rapid improvements. A study of this "moving picture" would reveal the fact that by the time the survey was printed, important changes and advances had been made on most of the vital points suggested in the survey. Accordingly, as this material goes to press, some recognition of the many improvements made since the time of the survey is attempted by the insertion of frequent footnotes.

2. In January, 1922, this situation had been changed to the following:

| | |
|---|---|
| Total number of pupils enrolled in January, 1922 | 7,813 |
| Number of teachers giving full time | 75 |
| Practical arts teachers giving full time | 15 |
| Practical arts teachers giving part time | 24 |
| High school teachers giving part time, approximate | 22 |
| Number of continuation school centers: | |
| Elementary schools only | 13 |
| Stores and factories | 5 |
| High schools | 2 |
| Central schools | 3 |
| Total | 23 |
| Number of opportunities for practical work in 13 elementary schools: | |
| Full time | 10 |
| Part time | 1 |

3. In January, 1922, there were two high schools with opportunity for girls in one. The other high school pupils were being cared for in central schools.

4. Enrollment in three central schools increased to 65 per cent in January, 1922.

5. The 19 per cent was reduced to 14 per cent by January, 1922.

6. The average number of pupils per class was reduced to twenty pupils in January, 1922.

7. At the time this goes to press the situation on teacher training has been immensely improved by installing a very successful intensive training course of one week in December, 1920, an even more successful course of one week in December, 1921, and a ten weeks course of special training between March and June, 1921. In addition many teachers enrolled for special training courses during the summer of 1921. Further, transfer of pupils from the high school to the central continuation school brought these pupils under the instruction of specially trained teachers. In consequence of all this activity, the percentage of continuation school teachers in Philadelphia not specially trained for this work is now very low.

8. At the time of going to press the last six appointees to continuation school classes have been men; another vacancy will shortly be filled by the appointment of another man. This places nine men in the faculty of the McCall continuation school center alone.

9. At the time of going to press, this need has been recognized in the appointment of an assistant director of school extension and the authorization of three supervisors in this division.

10. In September, 1921, the Hollingsworth School was made a girls' center. Two floors of the McCall School were taken over as a boys' center, and installation begun on pre-vocational opportunities in elementary and advanced wood work, metal work, electrical work, mechanical drawing and elementary business practice.

11. In September, 1921, the extension of centralized continuation schools made it possible to remove continuation class from all high schools except two and it reduced the number of high school teachers devoting part-time to this work from approximately 90 to approximately 22.

# CHAPTER IV

## JUNIOR HIGH SCHOOL

**The Experiment of Philadelphia with the Six-Three-Three Plan.** Philadelphia extablished its Oliver Wendell Holmes Junior High School in West Philadelphia at Fifty-fifth and Chestnuts Streets in September, 1917. The building was originally designed as a grammar school but before its completion the decision was made to use it for the purpose of inaugurating the junior high school plan upon an experimental basis. Six elementary schools—Barry, Bryant, Hamilton, Hanna, Hoffman, and Huey—promote pupils completing the sixth year to the Holmes Junior High School.

The elementary schools and the junior high school are organized as well defined units in the six-three-three plan and can with singleness of purpose effectively concentrate upon their distinct problems. The West Philadelphia high schools for boys and for girls, must, during the transitional period of reorganization from the eight-four to the six-three-three organization, continue the difficult task of serving as outlets to two types of schools, viz., eight-year grammar schools and the Holmes Junior High School. The situation, therefore, demands patience and sympathetic understanding on the part of senior high school administrators and faculties. Further, it demands very close relationship between the administrative and instructional staffs of the two branches of the secondary system.

**Supervisory Control of Junior High Schools.** The six-three-three plan is a clear division of the public school system into two major fields of six years, viz., elementary and secondary schools. The junior and senior high schools are component parts of the secondary period. The junior high school must be developed both as the initial stage of secondary education and as a transitional unit between the elementary and senior high school, to the end that it may weld together the public school system.

**Articulation in Department of Superintendence.** It is essential that the type of control and supervision, provided in a large city system by the Department of Superintendence, should be continuous throughout the secondary field; more particularly, that an associate superintendent with supervisory control of the senior high schools should exercise similar control over the junior high schools, or delegate such authority to an assistant of his own staff. Thus the control of the junior and senior high schools will be so articulated that their supervision will effect in

practice a continuous policy and program for the entire secondary field.*

**Coördination of Administrative and Instructional Staffs in Junior and Senior High Schools.** It is equally important that the administrative and instructional staffs of the junior and senior high schools themselves work in close coördination.

Some progress has already been made toward the closer articulation of the Holmes Junior High School and the West Philadelphia high schools for boys and girls by means of conferences between the administrative and instructional staffs. Questions involving the program of studies, the curriculums, and various courses of study have been submitted to joint committees of the junior and senior high schools. At least one conference has been held in connection with each of the following departments: English, history and civics, foreign languages, mathematics, and art. A precedent has, therefore, been established for coördination. This development of conferences facilitating the coöperation of junior and senior high schools should be encouraged by the type of control from the Department of Superintendence suggested above.* The result must inevitably be the articulation of program of studies, curriculums, and courses of study on the basis of continuity through the junior and senior high school periods. No other outcome should be permitted.

**Continuity of Courses of Study Throughout Secondary Period.** At the time of the organization of the Holmes Junior High School, it was necessary to prepare junior high school classes for somewhat divergent requirements made by the West Philadelphia high schools for Boys and for Girls because the segregation of boys and girls in these two senior schools had developed certain unnecessary divergences in the courses of study. Divergences in hand training, e. g., mechanic arts in the Boys' Senior High School, home economics in the Girls' Senior High School, some variations in the science courses of study and other similar types of variation in courses of study offered to boys and girls would be wholly justifiable. Divergences, however, in the major branches of English, social studies, foreign languages, etc. (e. g., the direct method in foreign language in one high school and the grammatical in another), present insurmountable difficulties to the preparatory courses of the junior high school. The conferences between the junior and senior high schools have demonstrated that many existing divergences were largely unnecessary.

* See Addenda.

## RECOMMENDATIONS

1. Either the jurisdiction of the present associate superintendent in charge of secondary schools should be extended to the junior high schools or such control should be delegated to an assistant of his own staff.

2. The present plan of conferences between junior and senior high schools should be extended, under the initiative of the Department of Superintendence, to each secondary school district when additional junior high schools are organized.

3. Some federation of secondary school districts should be effected which will be representative of each junior and senior high school.

4. Revision of curriculums and courses of study should be undertaken by representatives of the Department of Superintendence, and of junior and senior high school principals, heads of departments and teachers.

5. The coördination of junior and senior high schools should be maintained by a uniform and effective policy of supervision, which shall be equally representative of the Department of Superintendence and junior and senior high school principals and heads of departments.

6. Recommendations of modifications of the present practice in supervision of secondary schools, made in other chapters of the survey, should be applied to the junior high schools.

**The Holmes Junior High School.—Enrollment.** The pupil enrollment in the Holmes Junior High School in February, 1921, was as follows:

| | Total Enrollment. | Number of Sections. | Average Enrollment per Section. |
|---|---|---|---|
| 7 A (Low seventh) | 225 | 6 | 38 |
| 7 B (High seventh) | 333 | 7 | 48 |
| 8 A | 271 | 6 | 45 |
| 8 B | 311 | 7 | 45 |
| 9 A | 210 | 5 | 42 |
| 9 B | 203 | 5 | 41 |
| Total | 1,553 | 36 | 43 |

This average enrollment is at present necessary unless, in view of the congestion in all schools, some pupils are placed on part-time schedule. Of the alternatives an average class enrollment of 43 is preferable. However, when building accommodations are enlarged an average enrollment of 35 pupils should be made the maximum by reason of the fact that the present overlarge classes cannot do satisfactory work. For the Holmes Junior High School there would then be 44 class units in place of 36—an increase of 8 classes, 240 periods, 10 teachers, and

10 rooms. The greater justice to pupils and the greater realization of Philadelphia's investment should outweigh all considerations of expense.

## RECOMMENDATIONS

There should be an increase in the teaching staff, to the extent of permitting an average class enrollment of 35 pupils, as soon as building facilities permit or relief is provided by another junior high school in West Philadelphia.

**Faculty Organization.** The following table will indicate the faculty organization:

| Subjects | Total Number of Teachers | Total Number of Classes | Average Number of Periods of Teaching a Day per Teacher | Teaching Load, Per Cent of School Day in Classroom per Teacher |
|---|---|---|---|---|
| English | 9 | 40 plus 3 opportunity groups | 5* | 83⅓ |
| Mathematics | 7½ | 38 plus 3 opportunity groups | 5* | 83⅓ |
| History | 5 | 37 plus 3 opportunity groups | 5* | 83⅓ |
| Science and Geography | 5½ | 36 plus 2 opportunity groups | 5* | 83⅓ |
| Foreign Language | 5 | 26 | 5* | 83⅓ |
| Free-hand Drawing and Mechanical Drawing | 2 | 24 | 5.6 | 93⅓ |
| Wood Work | 2 | 21 | 5.8 | 96⅔ |
| Electricity | 1 | 10 | 6† | 100 |
| Sewing | 2 | 24 | 5 | 83⅓ |
| Cooking | 3 | 25 | 5 | 83⅓ |
| Music and Penmanship | 1 | 16 Auditorium | 4.6 | 76⅔ |
| Physical Education | 4 | 36 | 5 | 83⅓ |

* Four periods a day, classroom teaching; one period a day in auditorium or study groups.
† No record class.

The faculty organization shows in the main an equitable distribution of the teaching load. Each group of subject teachers is organized with a subject group chairman. Two free periods a week are allotted to the chairman for conferences with and supervision of the teachers in the group. Four free periods a week are allotted to the faculty representative on the staff of the school paper, "The Nautilus," and three periods a week to the dramatics teacher.

One of the heaviest teaching loads carried in the school is that of the English teacher who assumes the added responsibilities of dramatics and rehearsals. This is manifestly a disproportionate burden.

The principal of the school must become its educational leader. He must adjust the instruction and the activities of the school to the changing demands of the community and of educational thought and inspire and direct the teaching force and the student body. Too close absorption in details makes such leadership impossible. For this reason the principal of a large school should have efficient administrative assistants.

The head teacher of the Holmes Junior High School gives two-thirds of his school time to such duties as roster making, directing classes with all the problems of adjustment of individual rosters, placing new pupils, directing vocational and educational guidance, and assisting in the problems of discipline.

### RECOMMENDATIONS

The time of the teacher of English who has charge of dramatics and rehearsals should be equally divided between English teaching and dramatics.

The head teacher should be recognized as vice-principal and his full time be given to administration.

**Program of Studies.** The program of studies as given below was that in operation in the second semester of 1920–21, February–June, 1921. During the school year 1920–21, a revision of the program of studies, greater flexibility in curriculum electives, and a revision of the courses of study were undertaken. At the date of the preparation of this report, these revisions were not wholly completed and cannot be included in the report. The program of studies will be discussed in terms of the purposes of the junior high school in following sections of this chapter. Recommendations of modifications in the program of studies, in the curriculum electives, and in the courses of study will, therefore, be distributed through the sections next following.

## Program of Studies

| Seventh A (Low Seventh). | | Seventh B (High Seventh). | |
|---|---|---|---|
| Subjects. | Periods a Week. | Subjects. | Periods a Week. |
| English | 5 A† | English | 5 A |
| Mathematics | 5 | Mathematics | 5 |
| Science-Geography | 4 A | Science-Geography | 4 A |
| History | 4 A | History | 4 A |
| Free-hand Drawing (Girls) | .. | Free-hand Drawing (Girls) | .. |
| Mechanical Drawing (Boys) | 1 | Mechanical Drawing (Boys) | 2 |
| Sewing (Girls) | .. | Cooking (Girls) | .. |
| Wood Work (Boys) | 2 | Electricity (Boys) | 3 |
| Music | 1 | Music (Auditorium) | 2 |
| Music (Theory) | .. | Physical Education | 2 |
| Penmanship | 1 | Period with Record Keeper | 1 |
| Art Appreciation | 1 A | Study | 2 A |
| Physical Education | 2 | | |
| Period with Record Keeper | 1 | | |
| Study | 3 A | | |
| Total | 30 | Total | 30 |

* Forty-five minute period.

† "A" indicates that one period a week is devoted to auditorium work with several classes by grades, e.g., all 7 A Classes are seated in auditorium for a lesson in English.

| Eighth A (Low Eighth). | |
|---|---|
| Subjects. | Periods a Week. |
| English | 5 A |
| Mathematics | 4 |
| Science | 2 A |
| History | 4 A |
| Free-hand Drawing | 2 |
| Sewing (Girls) | .. |
| Mechanical Drawing (Boys) | 2 |
| Cooking (Girls) | .. |
| Wood Work and Electricity (Boys) | 3 |
| Foreign Language | .. |
| French, Spanish or Latin | 4 |
| Music (Auditorium) | 1 A |
| Physical Education | 2 |
| Period with Record Keeper | 1 |
| Total | 30 |

| Eighth B (High Eighth). | |
|---|---|
| Subjects. | Periods a Week. |
| English | 5 A |
| Mathematics | 4 |
| Science | 3 A |
| Sewing (Girls) | .. |
| Mechanical Drawing (Boys) | 2 |
| Cooking (Girls) | .. |
| Wood Work (Boys) | 3 |
| Free-hand Drawing | 2 |
| Foreign Language | .. |
| French, Spanish or Latin | 4 |
| Music (Auditorium) | 2 A |
| Art Appreciation | 1 A |
| Period with Record Keeper | 1 |
| Physical Education | 2 |
| Study | 1 A |
| Total | 30 |

| Ninth A (Low Ninth). | |
|---|---|
| Subjects. | Periods a Week. |
| English | 5 A |
| Mathematics | 4 |
| Science | 4 A |
| History | 4 A |
| Foreign Language | 4 |
| Cooking (Girls) | .. |
| Wood Work (Boys) | 3 |
| Music (Auditorium) | 1 A |
| Free-hand Drawing | 2 |
| Physical Education | 2 |
| Period with Record Keeper | 1 |
| Total | 30 |

| Ninth B (High Ninth). | |
|---|---|
| Subjects. | Periods a Week. |
| English | 5 A |
| Mathematics | 4 |
| Science | 4 A |
| History | 4 A |
| Foreign Language | 4 |
| Sewing (Girls) | .. |
| Mechanical Drawing (Boys) | 2 |
| Music (Auditorium) | 1 A |
| Free-hand Drawing | 2 |
| Physical Education | 2 |
| Art Appreciation | 1 A |
| Period with Record Keeper | 1 |
| Total | 30 |

## The First Purpose of the Junior High School

"To continue, in so far as it may seem wise and possible, and in a gradually diminishing degree, common, integrating education."*

The fundamental purpose of elementary education is to give the training essential to a usable knowledge of the common branches and to develop a sympathetic understanding of the social and civic structure of our democratic society. This unifying or "integrating" education, which occupies the full time of the elementary grades, gives way gradually in the high school to the variety of educational opportunities required by different groups of pupils.

In the senior high school we find definite curriculums such as academic, commercial, practical arts, etc., which attract pupils according to vocational purposes and individual tastes and abilities.

It is evidently necessary for the junior high school to retain, so far as its other objectives will permit, the social unifying processes of the

* Briggs, *The Junior High School*, p. 26.

elementary school. This curriculum, therefore, offers a maximum of subjects required of all pupils and a minimum of electives or variables. The required subjects continue the integrating or unifying education; the electives introduce the varied opportunities for diverging groups of individuals.

**Transitional Unit to Weld Together the Public School System.** In the reorganization of the public school system from the eight-four to the six-three-three plan, the junior high school must primarily serve as the new transitional unit to weld together the school system. One indictment against the eight-four plan is the abrupt change in subject matter, methods, and administration which causes a gulf between the grammar school and the high school.

If the junior high school is to become the bridge over the gulf, or in other words the transitional unit to weld together the school system, not only must the bridge be constructed with due respect to its own identity and strength, but also with due regard to the anchorage at each end. Otherwise the original confusion will be worse confounded by creating two gulfs where only one previously existed. The junior high school, therefore, must accomplish two purposes, each equally well—create and maintain its own identity and at the same time preserve close relationship with the elementary and the senior high schools.

**Seventh Year.—Adjustment.** The seventh year of the junior high school should be characterized by continuity with the program of studies and administrative policy of the sixth year of the elementary school. Particularly the low seventh should become largely, in practice as well as in purpose, the term of adjustment to facilitate the transition of sixth grade children to the junior high school. The program of studies in the sixth grade should for the most part be continued in the seventh. There should be increased facilities in handwork, physical education, and special subjects, the introduction or extension of science and social studies, and participation in school activities.

**Subject Promotion.** Subject promotion should prevail from the beginning of the junior high school period. Pupils should advance, so far as the class as a social unit is concerned, from low seventh to high seventh to low eighth, etc., accepting retardation in those subjects in which they have failed. How to facilitate a pupil's regaining the full grade advance is a problem confronting each junior high school. The best solution seems to be offered by a type of opportunity class or study coach organization, more specifically discussed below. Subject promotion and the remedy or prevention of subject non-promotion are very large factors in the holding power of the junior high school. For this

reason, among many others, subject-promotion should characterize the administrative policy of the junior high school from the beginning.*

**Continuing Common, Integrating Education in the Transitional School.** The first general purpose, viz., "to continue common, integrating education," will find its realization partly in each of the following factors of junior high school organization: (1) the continuity of the program of studies from the sixth grade to the seventh; (2) the perpetuation of the social unit by preserving the identity of the home-room class organization; (3) the remedy or prevention of subject failures to avoid loss of class membership; (4) the social integration of the junior high school by means of an extensive school socialization (discussed later).

The continuity of the program of studies, if wholly maintained in the low seventh, should, in a gradually diminishing degree, be replaced by an equally increasing proportion of electives throughout the remaining period of the junior high school. The realization of the purposes of the junior high school is, in a large degree, dependent upon this gradually increasing proportion of elective subjects and differentiated curriculums.

**The First Purpose as Applied to Holmes Junior High School.—Applications Creditable to School.** The program of studies and the organization of the Holmes Junior High School, to a very commendable degree, comply with the first general purpose. Continuity with the elementary school is maintained in the major branches of English, mathematics, history, and geography; the handwork is continued with enlarged facilities; the special subjects of free-hand drawing, physical education, and music are also continuous with the sixth year but they are enlarged in scope by increased facilities; science and mechanical drawing are added to the program.

The purposes of continuing common integrating education, and of establishing the junior high school as the transitional unit, are further advanced by the organization and administration. The identity of the class unit is preserved by grade organization. Further, the administrative provision of the record-teacher perpetuates, in a modified form, the single-teacher influence of the elementary school. Departmental instruction assures more expert subject teaching and so by reducing failure holds pupils together longer. Subject promotion is rapidly, in practice as well as in theory, being applied. Participation in the socialized life of the school extends throughout the whole three-year period. Through the agencies, therefore, of the program of studies, the organization into grade or class units, the one teacher home-room control,

* See Addenda.

departmental instruction, subject promotion, and the social integration of school activities, the Holmes Junior High School very creditably fulfills the first general purpose of continuing common integrating education.

**Remedial and Preventive Measures for Subject Non-Promotion.** The Holmes Junior High School makes the following very helpful provisions for subject non-promotions:

1. The individual roster is a special schedule planned for each pupil who has failed in one or more subjects. By means of this individual roster the pupil may temporarily drop the special subjects, e. g., music, drawing, and practical arts. This temporary gain of time is used to remedy the failure in the major subject. The roster is so arranged that the pupil both repeats the work of the preceding semester and takes the advanced course of the current semester. Such a pupil, when the back work is thus cleared up, resumes a full regular schedule.

2. The summer school offers to subject failures another opportunity. Here the objective is repetition of work failed for the purpose of readjustment to a full grade classification. Prior to the opening of the summer school, particular attention is given to a thorough investigation of failures.

3. Pupils who fail in three of the five major branches of English, mathematics, history, science, and foreign language are classified as complete failures to repeat the entire work of the grade.

### RECOMMENDATION

In connection with the summer school, specific reports of the needs of each pupil should be made by the Holmes Junior High School to the teachers of the summer school. These reports should be detailed to the end that the actual remedial work of the summer school may effect in the Holmes Junior High School reclassification with full grade rosters.

**Opportunity or Restoration Classes.** Upon an experimental basis opportunity classes were provided in February, 1921, for pupils failing in one or two subjects. The significant designation of "restoration" classes became the self-explanatory term which the Holmes Junior High School applied to the opportunity classes of its first semester. Opportunity classes have been successfully conducted in the elementary schools of Philadelphia. With some adaptations, it has been demonstrated at the Holmes Junior High School that similar classes could be incorporated in the junior high school organization.*

* See Addenda.

**Operation of Opportunity or Study Coach Organization.** The opportunity or study coach organization ultimately will operate somewhat as follows: A pupil, e. g., who has failed in low seventh mathematics is given a high seventh promotion but is placed in a high seventh opportunity or study coach class. He will take high seventh English, history, and science, but low seventh mathematics, all with opportunity class teachers. He will, therefore, for a time sufficient to regain complete classification as a high seventh pupil be transferred to an opportunity class in all his subjects. In all major branches except mathematics he will pursue the full course of study paralleling the advance of regular classes in these subjects. But he will review low seventh mathematics, "make up" the back work, "catch up" to the high seventh advancement (both with the same teacher and in the same opportunity class), and then, after demonstrating his ability to "keep up" for a time, he will be transferred to a regular high seventh class.

**Segregated Organization and Special Administration.** The opportunity classes should be segregated from the regular organization in a small unit organization with its own teaching staff and with an administration of its own subject to the principal's office. The problems arising in opportunity classes are largely individual and require more detailed attention than a supervising principal in a school of the size of the Holmes Junior High School should be expected to give. The administration, therefore, should be delegated to the vice-principal or other assistant of the principal.

The program of the opportunity class should include only the major courses of study, English, mathematics, history, and science, upon which grade advancement is dependent. Temporarily the pupil sacrifices all handwork or those special subjects upon which advancement is not to such a large extent conditioned. This gain of school time presents the opportunity for special attention to the needs of each case; thus, time is obtained for special study and coaching.

**Three Groups: (a) Non-Promotions, (b) Trial Promotions, (c) Failure Preventions.** The opportunity class organization should be extended to include three groups of children: (a) the non-promotion pupils who have failed in one or more subjects (remedial); (b) the trial-promotion pupils entering with conditions from the contributing schools (remedial); (c) the failure-prevention pupils who show indications of becoming subject failures at the end of the current term (preventive). The transfer of pupils in groups (a) and (b) to the regular full-roster classes of the school should be made as early in the term as the three objectives of "Make up," "Catch up," and "Keep up," are attained. No pupil, except the permanently backward, should be kept in the opportunity

class longer than necessary to fulfill the purposes of his original transfer to the class; otherwise, the incentive to honest effort in regaining classification with a regular class is removed. The transfers, therefore, of pupils from groups (a) and (b) to full-roster classes create vacancies in the opportunity classes for the admission of pupils in group (c). Groups (a) and (b) comprise the opportunity class organization at the beginning of each semester and are gradually transferred to regular classes. As subject failures reveal themselves in the full roster classes in the progress of the regular work, the opportunity classes are gradually filled with pupils in group (c). This shifting of pupils demands close administration of the type previously mentioned.

The opportunity classes, therefore, will stabilize grade advancement, facilitate strict adherence to subject promotion, and serve as one of the school's chief factors in retention, because it prevents elimination due to the natural discouragement of non-promotion.

### RECOMMENDATION

Opportunity or restoration classes should be included as permanent factors in the organization; further, these remedial and preventive measures in subject failures should be extended to all subjects in the seventh, eighth and ninth years.

**The Home-Room Counselor.** The home-room teacher is essential in the transition from the elementary school to the junior high school. To pupils coming from elementary schools where there is no departmentalization, there is in the junior high school a marked change from one-teacher instruction to subject-teacher instruction. The junior high school must, therefore, continue the wholesome grade-teacher control and guidance of the elementary school. This can be achieved by preserving the identity of the class organization in the daily shifting of classes, and by placing the responsibility for class standards of conduct and attainment upon a home-room teacher who corresponds to the grade teacher of the elementary school. The home-room teacher should be one of the regular subject teachers of the particular class. In addition to class instruction, the home-room teacher should assume responsibility for the welfare, the progress, and the school life of the class not only as a unit but also as individuals. Her function as adviser of these immature pupils is a much more intimate one than is suggested by the term "record keeper," which is the one used in the Holmes Junior High School.*

The junior high school building should be constructed with the following purposes in view: the adaptation of each classroom to home-

* See Addenda.

room needs, sufficient seating capacity, proper desks for books and supplies, and ample wardrobe provisions.

**A Subject Teacher of the Home-Room Class.** The home-room counselor should be one of the subject teachers of the class; this will insure the maximum amount of time spent with the class by any one teacher in a departmentalized school. The home-room counselor's interest in the school record and progress of the class will extend, however, beyond the home-room counselor's own subject. The counselor will consult other subject teachers and the administrative staff regarding the progress of the class collectively and individually.

**Creating Right Class Standards.** A class unity and loyalty should be diligently sought by the counselor. Class standards of accomplishment in school work, class standards of conduct, and class ideals of coöperation in general school activities, should be matters of responsibility to the home-room counselor. The honor of the class should be carefully guarded as a sacred obligation by both counselor and pupils. It is too likely that such a class honor will not exist if not fostered by the home-room counselor. Here is the basis of appeal so effectively employed with the early adolescent age of the junior high school. Coöperative service is the natural expression of the adolescent's newly awakened social urge. But this urge must be stimulated to worthy use by the influence of the home-room counselor.

**Fundamental to Realization of Purposes of the Junior High School.** The realization of the purposes of the junior high school is largely contingent upon the Faculty's conception of their duties as counselors of adolescents. Junior high school pupils are seeking to explore, to discover, and to start the educational or vocational careers which, during the junior high school period, will be determined to be best adapted to their individual aptitudes. The service, therefore, of all members of the Faculty as home-room counselors or associate home-room counselors is vital to the realization of the purposes of the junior high school. The recognition of this fact naturally will lead to a fuller conception of the functions of the home-room counselors and associate counselors.

**Progress at the Holmes Junior High School.** The Holmes Junior High School has already caught the point of view in a plan inaugurated in February, 1921. A free period is set aside once a week for each home-room class to meet with the counselor in the latter's own rooms. This excellent provision dignifies the position of counselor both in the estimation of the class and of the counselor. Respect for the service rendered and accepted is secured, therefore, by the same means by which respect for other similar curriculum and educational objectives is attained, viz., definite school time allotment.

RECOMMENDATIONS

Another more significant term than the present one of "record-keeper" should be adopted. This report suggests one other term, viz., the home-room counselor; other equally significant can be selected.

It is further recommended that associate home-room counselors include all subject teachers not assigned to home-room duties. It is suggested, also, that associate home-room counselors be assigned to classes of the semester prior to or during the semester of initial choice of electives.

## The Second Purpose of the Junior High School

"To ascertain and reasonably to satisfy pupils' important immediate and assured future needs."

**Commission on Reorganization of Secondary Education.** The report of the Commission on the Reorganization of the Secondary Education makes the following statements pertinent to the second purpose:

**1. Need of Immediate Values.** "The number of years that pupils continue in school beyond the compulsory school age depends in large measure upon the degree to which they and their parents realize that school work is worth while for them and that they are succeeding in it. Probably in most communities doubt regarding the value of work offered causes more pupils to leave school than economic necessity. Consequently, it is important that the work of each pupil should be so presented as to convince him and his parents of its real value."

**2. Subordination of Deferred Values.** "Many subjects are now so organized as to be of little value unless the pupil studies them for several years. Since a large proportion of pupils leave school in each of the successive years, each subject should be so organized that the first year of work will be of definite value to those who go no further; and this principle should be applied to the work of each year. Courses planned in accordance with this principle will deal with the simpler aspects, or those of more direct application, in the earlier years and will defer the refinements for later years when these can be better appreciated. The course as a whole will then be better adapted to the needs both of those who continue and those who drop out of school."

Adolescents cannot always comprehend deferred values and cannot be stimulated to activity by the appeal to their assured future needs. But every incentive which appeals to the gratification of an important immediate need stimulates their mental and manual activities. The more clearly immediate values are presented to the adolescent mind, the

more desirable, in the estimation of the adolescent, are the activities involved. Consequently, a definite purpose should characterize each course of study, in so far as this is deemed wise and practicable, to proceed through a direct realization of important immediate needs to an indirect attainment of assured future needs. This is clearly the significance of the Commission's recommendation to subordinate deferred values to immediate values in Secondary Education.

**Impulse of Adolescent to Self-Activity in His Own Environment.** For example, the adolescent may be stimulated to study personal hygiene when he appreciates the fact that compliance with the rules of health is fundamental to successful participation in contests of skill and endurance. The deferred values of such a study in adding years to his life and in preventing chronic disease in middle life or old age are of little concern in the years of adolescence.

The project method of classroom instruction is an appeal through the immediate objective to a deferred objective. In other words, by stressing the important immediate needs of the present project, other greater and deferred values, assured as future needs, are attained. Without the immediate project, there would be lacking the vitalizing factor of an interesting and immediate objective.

**Subordination of Deferred Values Best for All Pupils.** This principle of organization of the courses of study, even if partially applied, will promote justice to those who continue in school and those who drop out. The former will be stimulated to continue their educational advance and to reap the benefit of deferred values by reason of the continuous motivation of their school work through the appeals to their important immediate needs. The drop-outs will not be wholly deprived of educational gain by the organization of the curriculum upon the principle of deferred values. They will have received a positive educational gain by virtue of the fact that their important immediate needs have been continuously ascertained and reasonably satisfied.*

### Specific Application of Second Purpose in the Holmes Junior High School

**1. Latin.** The teaching of Latin may assure both immediate and future needs. There should be a study of Latin roots and English derivatives for vocabulary building, a study of Roman history for the contributions of law and government, Roman architecture, social life and customs, and all the world's inheritance from Roman civilization. There would also be deferred values in laying the foundation in first year Latin for the reading of Latin literature and the richer knowledge

* See Addenda.

of Roman civilization for those who continue the study of Latin and will, therefore, benefit by the refinements of advanced study.

In the Holmes Junior High School Latin particularly needs modification if it is to provide any immediate value. The objective has been largely First-Year Latin for preparation in reading Caesar and other Latin literature. It stresses, therefore, deferred values. Since the survey began the course of study has, already in part, been revised for greater conformity with the second purpose.

RECOMMENDATION

In further revision of the course, consideration should be given so far as possible to the following values:

(1) "The practical values, as, for example, the use of Latin in explaining English derivatives, in spelling, etc.
(2) The development of a habit of intense application in the solution of different problems.
(3) "The cultural values as, for example, the insight afforded into the civilization of ancient Rome, the development of a feeling for good English, etc." (Report of the Committee on the Junior High School Syllabus in Latin, University of the State of New York, Albany.)

**2. Mathematics.** The National Committee on Mathematical Requirements recommend that "the mathematics of the three years of the junior high school should be regarded as a unit. The course should include arithmetic, intuitive geometry, algebra, numerical trigonometry, and introduction to demonstrative geometry." These recommendations vitalize the mathematics of the junior high school and give assurance that pupils' important immediate and assured future needs may be reasonably satisfied. Therefore, the social applications of mathematics during the junior high school years are emphasized by the Committee's report (Secondary School Circular No. 6, Bureau of Education, Washington).

In the Holmes Junior High School the reorganization of the course of study in mathematics is under way in line with the recommendations of the preliminary report of the National Committee on Mathematical Requirements, which was not published until July, 1920. It is a tribute to the professional spirit of the Holmes Junior High School faculty that the reorganization so quickly follows the report of the National Committee. The introduction of a unit course including arithmetic, intuitive geometry, and algebra must be a gradual evolution from the present course.

RECOMMENDATION

The course in mathematics should be gradually revised to include general mathematics in the seventh, eighth and ninth years.

**3. English.** In accordance with the second purpose, each year of the English course of study will be of definite value to those who drop out of school and those who remain in school. The English course, therefore, should ignore the objective of a grammatical content for future foreign language study. There must be in each year, language study for sentence and paragraph structure, correct use to establish good English habits, word study and spelling for vocabulary building, oral and written English for practice in spoken and written English, appreciation of literature for the development of the habit of reading, supplemented by actual training in the use of books preferably at the hands of a trained librarian, and English grammar largely for the purpose of giving intelligent reasons for the standards of correct use.

School auditorium exercises, home-room class programs, school dramatics, public speaking, student clubs of a literary character, and the school paper will supplement and motivate English study. Further, the content of the English course of study in oral and written English and in literature may in part serve the purpose of educational and vocational guidance; also the content may be drawn from the school activities to the mutual and profitable articulation of English and school socialization.

In the Holmes Junior High School the English course of study covers language study, applied grammar, oral and written English, the use of books, and literature. The course of study already in large measure complies with the second purpose. Stress is laid upon correct use, and grammar is made to contribute largely to intelligent knowledge of how to use English correctly.

The important immediate and future values of systematic instruction and practice in silent reading are fully appreciated and are a part of the English course of study. This training of pupils that "they may get the largest possible results from silent reading when no one is present to offer suggestions or to aid in the interpretation" is warranted by the transfer of such power to the more efficient study of all lesson assignments.

Effective work is done in the helpful articulation of educational and vocational guidance with the English course in oral composition, the project method, auditorium programs, debates, etc. The school paper, "The Nautilus," is written and edited by pupils and offers an immediate value in the actual practice of properly motivated written composition.

**Library.** Attention is called to the report on School Libraries. Particular attention should be given by those responsible for Philadelphia's junior high schools to the recommendation that a library be established in each junior high school.

**4. Social Studies.** The course of study in social studies should conform to the principle of dealing with the simpler aspects, or those of more direct application, and deferring the refinements. American history and community civics should be stressed for the purpose of training for American citizenship. Ancient, European, and English history would be briefly studied for the intelligent comprehension of the growth of civilization and the beginnings and background of American history. Detailed ancient history, when restricted to Greek and Roman history largely for the purpose of a historical setting for foreign language study, serves deferred values and certainly during the junior high school period, should be subordinated to larger social values.

Concurrently with the study of American history, courses in community civics, economic civics, and vocational civics should be given that pupils may comprehend current events and be trained to participate in the civic, political, economic, vocational, and social problems of their own times. Active, intelligent, and properly motivated American citizenship both now in the adolescent period and later in adult life would become the objective of the social studies.

Student participation in school control, organized student activities, and school socialization furnish the special field for their activities as citizens in the school community. "The proper performance of these activities now is the best preparation for the civic duties of the years to follow." Subjectively, citizenship is taught through the course in social studies. Objectively, it is caught, or translated into conduct, by the junior citizenship of adolescent life in the secondary school. Close articulation of the history and civics course of study with school activities should be consciously and constantly sought during the three years of the junior high school. In this way pupils may learn what democracy is, how it has developed in our nation, how its coöperative activities have been and must be carried on. At the same time they may gain skill in these coöperative processes by experience in the school as a social institution. This articulation of teaching with training will assure that pupils may realize their important immediate needs as junior citizens in coöperative school government and their assured future needs as active citizens in American self-government.

In the Holmes Junior High School history extends throughout the junior high school with the exception of the high eighth semester. This is highly commendable. American history with community civics is

given in the seventh year and low eighth; ancient history is given in the ninth year.

The fact that the teacher serving as chairman of the history group is also the faculty director of the I. C. U. (Industrious Citizens' Union) accounts for the close articulation of the history course of study and school socialization. It is a wise administrative purpose thus effectively to combine classroom instruction with the "living civics" of school life.

### RECOMMENDATION

The ancient history of the ninth year should be transferred to an earlier grade including only such parts of ancient history as are essential to develop a background for American history. This recommendation is offered to supplement the already well organized history work of the fifth and sixth grades, where some attention is given to the beginnings of American history. The ancient history of the ninth year should be replaced by a course in economic civics. When revision is next undertaken, it is recommended that the term "Social Studies" be adopted to cover the whole course of history, community civics, vocational civics, and economic civics.

**5. Science.** In the course of study in geography and science, life relationships are the important immediate needs. In other words, the junior high school course would proceed by the true scientific method, i. e., the application of principles to the solution of actual life problems.

Science, like mathematics, should not be cross-sectioned, but should be a unit course; each year should be of definite value to those who go no further. The former practice of completing geography in the seventh year, and the cross-sectioning of science into biology, physical geography, physics, and chemistry is replaced in the junior high school by courses in geography and science in the seventh and eighth years and general science in the ninth. These courses include the simpler aspects of science of direct application and the solution of actual problems in adolescent life. Thus there will come to the adolescent mind widened intelligent interest in natural phenomena and laws and also improved power of observation. General science, therefore, in the three years of the junior high school is an immediate value in the observation of the phenomena of life and their interpretation in terms of personal application.

In the Holmes Junior High School a very clear purpose to abandon the cross-sectioning of science is evident in the general science course. The chairman of the science group of teachers expresses the common conviction of the group in the statement: "An introductory course in the scientific study of common things is now generally recognized as

an essential part of the educational opportunities offered by our schools." Geography and science are given for the first year, and general science for the last two years. Life contacts are emphasized throughout and a high degree of conformity with the principles of the second purpose is obtained throughout the three years.

**Expansion of Single Curriculum Into a Curriculum of Required and Elective Subjects.** In connection with the fuller realization of the second purpose, viz., to satisfy pupils' important immediate needs and assured future needs, it remains to say that no single curriculum of required subjects only can completely fulfill this objective.

The flexibility of the program of studies possible in the segregation of comparatively large numbers of pupils in the seventh, eighth and ninth years is one very distinctive gain in the junior high school organization. This will be particularly evident when the flexibility of the junior high school is compared with the inflexibility of the program of studies which is unavoidable in the comparatively limited enrollment and school facilities of the seventh and eighth grades in a single grammar school. The wider the range of contact in the program of studies, the greater naturally the probability that all pupils' immediate and future needs will be ascertained and reasonably satisfied.

RECOMMENDATION

Reorganization should be undertaken with the view of providing elective subjects in a constants-with-variable type of curriculum (see "The Junior High School," Koos, page 105 ff) or of providing progressive and partial differentiation leading to a multiple-curriculum type.*

## The Third, Fourth, and Fifth Purposes of the Junior High School

*Third Purpose.* "To explore by means of material in itself worth while the interests, aptitudes, and capacities of pupils."

*Fourth Purpose.* "To reveal to them, by material otherwise justifiable, the possibilities in the major fields of learning."

*Fifth Purpose.* "To start each pupil on the career which, as a result of the exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the State."

These last three purposes are closely interrelated and are capable of realization, in a large degree, through the same organization in the program of studies. School facilities promoting one of the three purposes promote the other two in practically an equal manner. The three are therefore grouped together for the following discussion.

* See Addenda.

**Quotation from Dr. George Wheeler.** Dr. George Wheeler, Associate Superintendent of Schools, in an article, appearing in the *School Review* in April, 1913, enumerating the results to be expected by the senior high school in the introduction of the six-three-three plan, said: "the junior high school has given the pupil an opportunity to try out varied lines of interest. He is now better prepared to choose his course wisely. His past three years have given him some guidance in determining whether he shall take up academic, commercial, manual or trade work. He fits in the work because he has grown and not been thrown into it."

It is significant to note that Dr. Wheeler's recommendation to establish the six-three-three plan in Philadelphia was considerably in advance of any organization (except sporadic) of the junior high school movement in the eastern part of the country. However, even at this early date, he predicted what have become three of the primary purposes of the junior high school, viz., "to try out varied lines of interests," i. e., to explore (third purpose); "to give some guidance to wise choice of courses," i. e., to reveal, (fourth purpose); and to start each child in the major field of learning (fifth purpose).

In another statement of the same paper there is a clear perception of the junior high school as the transitional unit welding together the public school system: "The junior high school gives an excellent opportunity to make an easy transition from one plan (one-teacher régime of the elementary school) to the other (departmental plan)." Dr. Wheeler, in this early prediction, foresaw that guidance in choice of courses in the junior high school, would facilitate transition to the senior high school; and, to the decided advantage of the senior high school, would simplify the whole secondary school problem of intelligent educational placement in differentiated curriculums.

Educational leadership, therefore, in the secondary schools of Philadelphia is favorable to the third, fourth, and fifth purposes of the junior high school, i. e., to explore individual differences, to reveal the possibilities in the major fields of learning, and to start each pupil on the career determined wise for him, as a result of the exploratory courses. It has previously been noted that the Holmes Junior High School, in large measure, satisfies the requirements of the first and second purposes.

**Wider Range of Contact in Curriculum.** To the end of more completely complying with the requirements of the last three purposes, the present single curriculum offered by the Holmes Junior High School should be modified to provide a wider range of contacts. It is not conceivable that exploration, revelation of major fields of learning, and starting pupils on the initial stages of differentiated curriculums can

logically be products of the restricted range of contact of a single curriculum type in the program of studies.*

RECOMMENDATION

Beginning with the high seventh, exploratory courses should be introduced into the program of studies. The consequent widening of the range of contact through a modified type of single curriculum enriched by exploratory courses will effect a transitional stage from the restricted single curriculum of the elementary school to a subsequent constants-with-variables type of curriculum. The reorganization should proceed by gradual development but it should, however, continue through the next few years.

**Significance of Phrase "By Means of Material in Itself Worth While."** It is important to note that the statements of the third and fourth purposes include the phrases, "by means of material in itself worth while" and "by material otherwise justifiable." These phrases are consistent with the second purpose "to ascertain and reasonably to satisfy pupils' important immediate and assured future needs." It is clear that the second, third, and fourth purposes emphatically urge recognition of the fact that the junior high school must serve the needs both of those who drop out and of those who continue. In addition to the exploratory objective for those who continue, each course of study, therefore, should contribute immediate values for those who drop out during the junior high school period. "Material in itself worth while" will constitute in large measure "reasonable satisfaction of important immediate needs." Moreover, two other desirable results will be gained by insistence upon the inclusion of material of immediate value, viz., first, by means of such material all pupils are convinced that their school work is worth while, and, secondly, greater numbers are persuaded to continue.

**Enrichment of Single Curriculum.—1. Foreign Language Courses.** The present curriculum of the Holmes Junior High School includes foreign languages in the eighth and ninth years.

RECOMMENDATION

The time allotment should be reduced from five periods to three periods a week in the eighth year. It is further recommended that the foreign language courses, later in the reorganization, be postponed to the second semester of the eighth year and then offered as an elective. This will be secured by this means for the introduction of other exploratory courses in the first semester of the eighth year.

* See Addenda.

**2. Commercial Courses.** The present curriculum of the Holmes Junior High School provides for commercial mathematics and first lessons in business in the ninth year.

RECOMMENDATIONS

An introductory and exploratory commercial course, of three periods a week, should be required of all pupils in the first semester of the eighth year. This course should include commercial arithmetic, junior business training, and business writing, as recommended in the chapter of this survey on commercial education. Attention is also called to subsequent commercial electives discussed in the same chapter. These recommendations are in accord with the report of the Committee on the Reorganization of Business Education, of which committee Dr. Cheesman H. Herrick is chairman.

**3. Home Economics Courses.** The Holmes Junior High School offers Home Economics throughout the three years, alternating by terms with sewing and cooking. The applied art and textiles courses of the senior high school are explored and revealed in the junior high school course in sewing.

RECOMMENDATION

Home management, home budgets, nursing, laundry, and other aspects of home training should be added to the present course. These added courses will materially enhance the immediate values of the junior high school curriculum. For these purposes additional building facilities and time allotment to home economics are recommended. For other recommendations, attention is called to the chapter of this survey on Home Economics.

**4. Mechanic Arts Courses** The present curriculum includes woodworking, electricity, and mechanical drawing. Comparatively, this development is far below that of the home economics course. It is due wholly to congestion in the building. The judgment of those in charge of Practical Arts and Vocational Education in Philadelphia is that the mechanic arts course should be extended as soon as facilities can be provided. The most pressing need would seem to be metal working or elementary machine shop practice, and next printing, not only for the exploratory needs of boys choosing the mechanic arts curriculum in the senior high school, but also for the practical training of boys choosing the academic or commercial curriculum.

The lack of manual arts training in the junior high school, by reason of insufficient building and equipment facilities and by the necessarily limited time allotment in the program of studies, is reflected by an

unavoidable result in the senior high school. Boys who are promoted from the Holmes Junior High School to the West Philadelphia High School for Boys are demoted to the ninth year mechanic arts course of the senior high school; at the same time, these boys continue their tenth year work in all other courses. The demotion in the one subject is wholly due to a necessarily limited mechanic arts course at the Holmes Junior High School. This loss of time, at present unavoidable, is most unfortunate and should be prevented at the earliest possible moment.

### RECOMMENDATION

As soon as building conditions will warrant, the present mechanic arts courses should be extended to include metal working, elementary machine shop practice or sheet metal work, and printing; to this extent increasing the present offerings of woodworking, electricity, and mechanical drawing. For other recommendations, attention is called to the chapter of this survey on Industrial Arts.

## SUMMARY OF FIVE PURPOSES RECOMMENDED AS PROGRAM FOR JUNIOR HIGH SCHOOL DEVELOPMENT IN PHILADELPHIA

**A Period of Adjustment.** It has already been pointed out that the low seventh should be the semester of adjustment in a new school environment.

**A Year of Try-out.** Adjustment should be followed by a period of exploration of aptitudes and of a preview of high school courses. The high seventh and the low eighth should, however, in a gradually diminishing degree, continue the program of studies of the low seventh semester. Following the single-curriculum type of program of studies in the first term, a modified type of an enriched program of studies should in a gradually increasing proportion, be introduced in the succeeding two terms. Here enter the exploratory or try-out courses, increasing the range of contact as a basis for discovering the interests, aptitudes, and capacities of pupils.

**Promotion Based Upon Major Branches and Not On Exploratory Courses.** During this exploratory period, promotion should be based upon the major branches of English, mathematics, history, geography and science; these major branches should become, with the special subjects of music, free-hand drawing, and physical education, the constants of the program of studies. At the same time exploration would be restricted, in a large degree, to another type of constants, i. e., the specialized branches: foreign language, commercial subjects, home economics, and mechanic arts. Both types of constants, the major

branches and the specialized branches, provide, in varying degree, exploration of aptitude and preview of high school courses. The former, however, are included in the program of studies upon the principle of continuity with preceding and following semesters; they are, therefore, required of all pupils throughout the junior high school period. The latter are introduced into the program of studies largely upon the principle of variety; though they are required of all pupils as exploratory courses, yet in succeeding semesters they are offered only as elective courses. Promotion during the exploratory period must be based upon the major branches by reason of their continuity. Promotion should not, however, be based upon the specialized branches by reason of their exploratory purpose only in this period. In each specifically exploratory course there must result an inevitable proportion of demonstrated incapacity for the particular subject. The purpose of the exploration is to discover this inaptitude not to penalize it by non-promotion. It will be understood in this connection that mechanic arts and home economics are used in the sense of specialized branches. Practical arts are part of the required curriculum throughout the junior high school period.

**The High Eighth as a Semester of Testing Choice of Electives.** The exploratory units of the high seventh and low eighth are uniform courses required of all pupils. Strictly, the constants-with-variable type of program of studies would follow in the high eighth. At the close of the low eighth semester pupils should be permitted to choose those variable units which, as a result of the exploratory courses, are determined best fitted to their individual interests, aptitudes, and capacities. The high eighth semester is a period of initial and partial differentiation of curriculums. This semester, then, becomes the period of testing choices of the electives or the variables. Freedom of cross-over between electives should be permitted during this semester.

**Summary of Seventh and Eighth Years.** Summarizing, the low seventh continues common, integrating education and becomes the period of adjustment in the transition from the elementary to the junior high school. The high seventh and the low eighth continue, in a gradually diminishing degree, the program of studies of the low seventh and, in a gradually and proportionally increasing degree, introduce specialized subjects for the exploration of individual differences. The high eighth continues, in a further diminishing degree, integrating education, provides for the choice of electives previously explored and, what is of equal importance with exploration and initial choice, tests the choice in the light of actual experience. Throughout the seventh and eighth years, therefore, guidance and educational placement, i. e.,

choice of electives, are the predominant objectives of the junior high school. Each teacher is first a counselor and secondly a subject teacher. Subject teachers who do not serve as home-room counselors should be assigned as associate counselors particularly to those classes in the exploratory or testing periods. A recent change in the weekly program of the Holmes Junior High School is significant. One period a week has been allotted for the guidance work of each counselor with the home-room class.

**Educational Program for Faculty.** Since junior high school teachers are today almost wholly trained through service, efficient administration requires the provision of an educational program for the professional training of the teaching staff. Such an educational program for the faculty will place in clear perspective the vision of the junior high school in its primary function of educational guidance and placement. This professional study would result in the proper evaluation of the service of the faculty primarily as counselors of adolescent youth in their difficult problems of educational choice.*

**Educational Guidance Program for Pupils.** The purpose of the junior high school to provide educational guidance involves not only a conscious effort in educational guidance by the faculty but also a thoughtful study by the pupils themselves of the content, aims, and outlets of junior high school electives and of all differentiated curriculums in the senior high school and higher institutions.

**Guidance Program of the Holmes Junior High School.** The following guidance program of the Holmes Junior High School is commendable for the opportunities it affords to the pupils to become informed upon matters of educational and vocational interest to their own careers.

**1. Home-Room Counselor.** Guidance has become a definite objective by reason of the recent allotment of one period a week to each home-room counselor.

**2. Auditorium Work.** Guidance is also effectively promoted by the programs of educational and vocational guidance in the auditorium periods, where classes are seated during their free periods usually by grades.

**3. English and the Social Studies.** The same purpose is again served by the articulation of educational and vocational guidance in the courses of study in English and the Social Studies.

* See Addenda.

**4. Guidance Bulletin Board.** Another means to the same end is the use of a centrally located bulletin board for the display of posters, clippings, articles written by pupils, etc., relating to educational and vocational interests.

**5. Debates and Dramatizations.** A program of debates and dramatization of vocational subjects contributes very helpfully to the same objective. In fact the school is gradually being permeated with the spirit to promote the vocational and educational information of the pupils.

**Guidance Classes.** The introduction into the program of studies of one or two periods a week for definite class instruction in educational and vocational guidance will focus pupil attention on the vital importance of seeking guidance in their own individual educational careers, particularly during the exploratory and testing periods of the seventh and eighth years. There is crystallizing a country-wide determination to attack the guidance problem through the tried methods of classroom instruction, which are unquestioningly adopted in connection with other curriculum aims.

Guidance classes may be directed to the following aims: (a) A study of all junior high school courses of study as to content, objectives, and outlets. (b) The conscious interpretation by the pupils of the actual value to themselves of school work and school activities. This answers the instinctive question of adolescence, "Why do I stay in school?" (c) A study of all senior high school curriculums as to content, objectives, and outlets. This answers another instinctive question in the pupil's mind, "Will it pay me to go to high school?" (d) A study of the entrance requirements and curriculums of higher institutions that junior high school pupils may be intelligently informed upon the scope and values of collegiate training. (e) A study of the aims, content, and vocational outlets of evening school and continuation school courses that drop-outs may be inspired to continue their education on a part-time basis. (f) A definite study of vocations, essential as a background of educational guidance and future self-direction. (g) The use of library facilities of an inspirational and educationally and vocationally informational character to junior high schools.

**Exploration and Revelation Concurrent.** By the introduction of senior high school subjects into the eighth year, the fourth general purpose "to reveal the possibilities in the major fields of learning" will be realized, concurrently with the realization of the purpose of exploration of pupils' aptitudes and the guidance of pupils' choices. The higher type of activities will be hereby revealed and "made both desired and to an extent possible."

**Ninth Year as Year of Stimulation.—Partial Differentiation as Transition to Senior High School.** As the seventh and eighth years may be broadly characterized as the finding and testing periods, so the ninth year may be characterized as the year of stimulation to facilitate the transition to the senior high school. The ninth grade carries on the program selected as the result of the exploration, guidance, and educational placement of the two previous grades. The constants-with-variables type of curriculum prevailing in the high eighth should be replaced in the ninth year by at least partially differentiated curriculums. This partial differentiation will be preparatory to the differentiation into academic, commercial, home economics, and mechanic arts curriculums prevailing in the senior high school. Thus the fifth purpose of the junior high school is fulfilled—"to start each pupil on the career which, as a result of the exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the State."

## THE JUNIOR HIGH SCHOOL AS A CONTRIBUTING EDUCATIONAL FACTOR IN THE PREVENTION OF VOCATIONAL MISFITS AND THE CONSEQUENT UNDERMINING OF CIVIC-MINDEDNESS

### RECOMMENDATION

Particular attention should be given in the junior high school development of Philadelphia to the considerations presented in the following paragraphs:

A careful analysis of the statement setting forth the fifth purpose reveals the fact that "to start the pupil on his career" is not restricted solely to educational advancement. The junior high school must serve the careers both of those who continue and those who drop out. The Holmes Junior High School fortunately is situated in a community where traditionally the overwhelming majority of its pupils continue their educational career into the senior high school. Yet, the Holmes Junior High School cannot wholly disregard its obligation to start upon their vocational careers the few pupils who drop out.

**Variation of Community Needs in Philadelphia.** It is, however, important for Philadelphia in the large to give careful thought and definite educational planning to the program of studies in the junior high schools of other communities where the percentage of drop-outs will equal, or even exceed, the number of those who continue. It must be borne in mind, as the junior high school is extended in Philadelphia to communities of various types of social, industrial, and economic environments, that the correspondence of program of studies and

organization in junior high schools is not so much a question of the same supervisory and financial control as it is of similarity of local community needs. It would be illogical to admit the principle of individual differences among the student body of a given school and to deny the equally natural differences of individual schools. There can, therefore, be no typical junior high school organization which could without variations be adopted in all communities.

**Equalization of Educational Opportunity.** It is a delicate problem for the junior high school to avoid, on one side, setting up vocational opportunities which may entice its youth from the greater advantages offered by higher education and, on the other hand, to avoid perpetuating the error of the eight-four plan by complete disregard of vocational training. The junior high school must have its guidance program. It must direct all its administrative and instructional agencies to the problems of guidance and educational placement. Both its program of studies and its guidance program must be motivated by the purpose to stimulate educational advancement. There will, nevertheless, be a residuum of pupils for whom there is an unavoidable choice between the alternatives of intensive training for vocational placement and of elimination from school. However, pupils should be directed into vocational curriculums only when it is definitely determined that they face the final alternatives of leaving school or choosing vocational training. No more serious problem confronts the guidance agencies of the junior high school than that of determining the residuum of pupils who should be placed in the vocational curriculums.

The fact that a junior high school can offer only comparatively inadequate vocational opportunities cannot be argued as an excuse for dodging the issue. It can at least serve as a school of prevocational try-out and thus to an extent replace the shifting from job to job in correcting industrial misfits. If the junior high school can contribute, even to a small degree with its limited facilities, to the prevention of industrial misfits and the consequent undermining of civic-mindedness, it will earn a degree of public confidence not possible through any other single service.

**Preparation for Junior Occupations.** Possibly one very general error to date is the restriction placed upon the interpretation of vocational training as industrial training. As a matter of fact, vocational training should be interpreted as preparation for the whole field of junior occupations, including the initial stages of all occupational careers, except those requiring advanced educational qualifications.

Not only, therefore, should the work of the junior high school preparatory to the Mechanic Arts and Home Economics curriculums

of the senior high school afford training for the junior occupations, but also the commercial work should serve the immediate needs of those who drop out before reaching the senior high school. Consequently, trades, manufacturing, industries, agriculture, clerkships, commercial and office positions, etc., will be open to pupils who leave the junior high school. But the particular vocational fitness of individuals must be explored and revealed and a start must be made in the junior high school upon the occupational preparation.

**Alternatives to Occupational Training in the Junior High School.** Frequently the alternative is blind choice and blind-alley occupation. It must, therefore, be the purpose of the junior high school to preserve equalization of educational opportunity by providing for its own drop-outs. This provision must be offered until some other educational opportunity becomes available to those who drop out from the junior high school. When the vocational or technical school reaches down to the seventh and eighth grades, when the continuation school offers occupational training on approximately a half-time basis to all junior high school drop-outs, or when a more advanced age for employment is legally adopted, then will the junior high school be relieved of its present unsought but nevertheless insistent duty to provide occupational training.

**Educational Value of Vocational Facilities to Those Who Continue.** Prevocational and vocational facilities should be open not only to pupils seeking occupational training but also to pupils continuing into the senior high school and the college. These facilities will furnish very definite educational values to those who continue. In addition to manual skill and to mechanical and home training, there are developed for such pupils an understanding of and sympathy with commercial and industrial vocations and their social environment. This understanding may helpfully influence the later vocational decision of the high school and college graduate; and this sympathy will contribute vitally to social integration, which is the first purpose confronting the junior high school.

**Curricular Stimulation to Educational Advancement in All Junior High Schools.** No junior high school in any community would arbitrarily eliminate from its program of studies those curricular tendencies stimulating educational advancement. Senior high schools now provide differentiated curriculums with outlets to college. Similarly all junior high schools should stimulate preparation for and promotion to all curriculums of the senior high school. Yet the junior high school must, unaided by the senior high school, offer occupational training to its own

residuum of pupils for whom advancement to the senior high school is impossible or impracticable.

**Educational Progress Frequently Promoted by Occupational Training.** It will frequently happen that occupational training, undertaken early in the junior high school for the initial purpose of vocational placement, will in itself stimulate advancement to a corresponding but more comprehensive course in the senior high school. While the initial objective may be to prepare for the more elementary junior occupation, the pupil is frequently inspired to see that the more desirable positions in his chosen vocation are restricted to those of higher educational qualifications. Ambitious to place himself in the line of promotion in his vocation, he voluntarily seeks more preparation in the senior high school. Although vocational training is primarily designed to hold through the junior high school those pupils most likely to drop out, yet it will operate in many cases to stimulate advancement to the senior high school. Consequently, educational progress is likely to be promoted by occupational training in the junior high school. Particularly will this result be achieved in the cases of those pupils most capable of benefit from continued educational advantages.

**Wisdom of Deferring Vocational Decision.** The wisdom of deferring vocational decision, involving specific placement, cannot be disputed. Clearly the phrasing of the fifth purpose "to start each pupil on his career" refers primarily to the initial stage of his secondary school career. The differentiated curriculums of the senior high school are the channels, either in the course of which actual vocational decision will be made or beyond which the decision will be again deferred to college. As a general principle it must be conceded that pupils between 12 and 15 years of age are too immature wisely to make vocational choice. But it must also be conceded that occupational preparation and vocational choice, on the part of those who drop out during the period of the junior high school, are unavoidable exceptions to this generally accepted principle of deferring vocational decision.*

## SOCIALIZATION

Adolescent life importunately seeks the outlets for its newly awakened social and moral consciousness. The junior high school would control the outlets because adolescence, which has outgrown the restrictions of childhood, cannot safely be trusted with the full liberties of maturity. The educational and vocational guidance program is, consequently, enlarged to include personal, social, moral, and avocational guidance.

*See Addenda.

In its discussion of the "recognition of the objectives in organizing the school," the Commission on the Reorganization of Secondary Education makes this perfectly evident but frequently disregarded comment: "The objectives must determine the organization or else the organization will determine the objectives. If the only basis upon which a high school is organized is that of the subjects of study, each department being devoted to some particular subject, there will result an over-valuation of the importance of subjects as such, and the tendency will be for each teacher to regard his function as merely that of leading the pupils to master a particular subject, rather than that of using the subjects of study and the activities of the school as means of achieving the objectives of education."

**Quotation from the Hon. George Wharton Pepper.** One of the foremost citizens of Philadelphia, the Hon. George Wharton Pepper, in an address delivered at a Teachers' Mass Meeting, October 28, 1920, gives a definition of school community life and its potential educational values which must challenge the most earnest attention. He expresses the point of view of the Commission, just quoted, in a clear conception of its practical applications: "Educational method will be determined by the end in view. Since the aim is to make citizens and since in a sense citizenship and life are convertible terms, the school must be a little world and must take account of the whole life of the pupil. *Classroom instruction is only a part of a greater whole.* Children must be taught to play as well as to work. Their student organizations and activities properly inspired and properly controlled, are just as important as reading, writing, and arithmetic."

The quotation definitely epitomizes the school as a little world, the educational center of the pupil's whole life, where citizenship and life itself are made convertible terms.

**Special Field for Adolescent Activities as Junior Citizens.** It must, therefore, be the final purpose of the junior high school to provide school socialization on a scale so extensive that adolescent youth may find in the school itself "the special field for their activities as citizens." It is vital to recognize that the organized activities of school socialization should be and are motivated by accepted educational objectives to an extent equal to the motivation of the subjects of study by such objectives. When this recognition is once given, school activities will be dignified by a definite time allotment consistent with its rich educational possibilities.

**Organized Activities an Integral Part of the Program of Studies.** Organized activities must, consequently, become an integral part of the daily schedule and must be as definitely planned as any other admin-

istrative or instructional facilities for the attainment of the objectives of secondary education. These activities are not incidental but integral parts of the program of studies. They should not be considered as extra-curricular but intra-curricular activities.

RECOMMENDATION

The Holmes Junior High School should become a part of the special field for adolescent activities as junior citizens; further, such activities should become an integral part of the program of studies with definite time allotments.

**Socialization in the Holmes Junior High School.** The Holmes Junior High School has undertaken a program in school socialization which may worthily become a precedent in the future extension of junior high schools in Philadelphia. Recognition of the foresight, the educational comprehension, and the devoted service of the administrative leadership and instructional staff of this experimental junior high school in creating and vitalizing school socialization is deserved and acknowledged.*

RECOMMENDATION

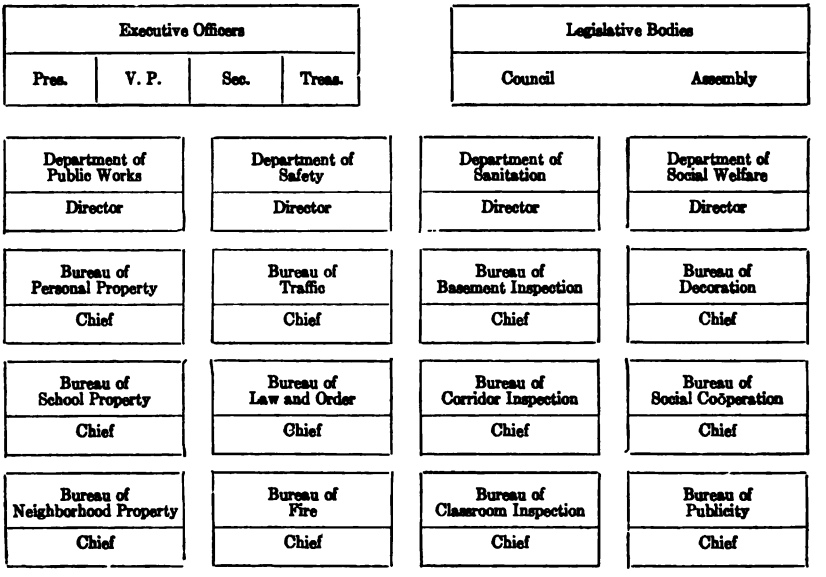
The Holmes Junior High School program of school socialization, with modifications as suggested below, should be accepted as the program for other junior high schools in Philadelphia.

**1. Students' Organization.** The present organization is briefly as follows: The students' organization includes thirty-six class units, in each of which the pupils elect one representative and one alternate to the I. C. U. (Industrious Citizens' Union) Council. It is the duty of these officers to represent the interests of the home section in the federated body, the council of representatives; to report back to the members of the section the program of activities outlined by the council; and to secure the coöperation of the class to the successful operation of school regulations and of the socialized life of the school.

**2. Federation of Class Units Into a School Community.** The federation of the class units into a large representative school community organization is ideally realized by the I. C. U. (Industrious Citizens' Union) now in successful operation at the Holmes Junior High School. The organization, its objectives and its service to the school will be most clearly evident from the following chart.

* See Addenda.

MEMBERS OF THE I. C. U.




**3. Each Class Organized as a Unit of Pupil Coöperative Government.** The organization of each class, as the unit of pupil coöperative government, should be modified to the end that participation in school control be extended to a larger proportion of the pupil body. The conception of civic and social responsibility will, as in adult life, originate more readily in the smaller local unit of community life. There must be natural stages in the conscious growth of pupil coöperative government through the class group to the larger federated pupil body. Training, also, for service to the school as a whole will be secured through experience in service to the class unit.

The expansion of teacher control from that of record keeper to home-room counselor should be accompanied by a similar expansion of pupil participation in the home-room activities. The present home-room organization should be amplified by another type of organization. The new organization will increase pupil participation in the home-room life; it will not replace but will supplement the present service of the class representatives and alternates.

The representative in the present organization should become also the class president in the new organization and the alternate the class vice-president. As elected class leaders or presidents they could properly serve as class representatives to the Federated Council.

To these class officers already provided by the present organization there should be added two or three others. The number of officers

should not be increased beyond the point where the distribution of duties is too extensive for proper oversight by the home-room counselor. Neither should the officers be multiplied so far in number as to decrease the respect of the class for each office. The title designating each office is immaterial. There should be definite duties to perform. Therefore, opportunities for pupil participation and service should first be determined. Then the responsibilities which pupils can helpfully assume should be ascertained. Finally the office should be created.

**4. Officers Holding Same Office Should be Organized for Purposes of Instruction, etc.** The officers of all home-room units holding the same office should be organized into a group of their own to receive instruction in the duties of the office, to profit by the experience of others, and to discuss methods of improvement in the service rendered to the class and to the school. A faculty director should be appointed to act as counselor of each group but the group should effect its own pupil organization. The principal may find it advisable to act as director of the presidents as the means of creating school morale and launching school campaigns and other projects. The principal can thus use class presidents, rather than faculty exclusively, as aids to secure coöperative service in a general school activity.

## COMPARISON OF THE EIGHTH YEAR GRAMMAR SCHOOL AND THE JUNIOR HIGH SCHOOL AS TO EDUCATIONAL OPPORTUNITIES FOR THE EARLY ADOLESCENT

### RECOMMENDATION

The following comparative study of the eighth year grammar school and the junior high school as to educational opportunities for the early adolescent, should be carefully considered in the extension of the junior high school program of Philadelphia. The comparison is based upon conditions as they prevail both in Philadelphia and other city school systems.

**Introduction of High School Subjects.** The grammar schools in Philadelphia, as has been the case in all city systems, have not been able to meet the individual needs of pupils in the upper grades as efficiently as can the junior high school. The grammar schools have, however, been organized largely upon the departmental basis in the upper grades. High school subjects have been introduced in the eighth year but serve the purpose almost entirely of preparation for the senior high school, e. g., algebra in the eighth year is taught for purposes of preparation; in other words, immediate values have been subordinated to deferred values. If Latin or any other high school subject is introduced into the

grammar school curriculum, it must be required of all pupils by reason of the inflexibility of a single curriculum inevitable to a small aggregate pupil enrollment in the eighth year. The immediate needs of those who drop out are, therefore, necessarily subordinated to the imperative requirement of making this introductory high school work serve the needs of those who continue into high school.

**Promotion by Subject.** The grammar school must almost wholly promote by grades. Subject promotion which increases the retentive power of the junior high school cannot be applied. Subject promotion involves the adoption of remedial and preventive measures in subject non-promotion on a scale impracticable to a limited upper grade organization in a grammar school. While subject promotion may, in a degree, be adopted in the upper grades of a grammar school, the fact remains that subject promotion for the seventh and eighth years does not prevail in successful practice except in the junior high school.

The classification of pupils by ability and promotion by subjects are both distinctive features of the reorganization of the seventh and eighth grades undertaken by the junior high school. In these respects, as well as in flexibility of program of studies, individual needs are more efficiently served in the larger organization.

**Exploration of Individual Differences and Revelation of Major Educational Activities.** The grammar schools can and do inform eighth grade pupils of the opportunities in the high schools and encourage them to continue their education. The information and encouragement, however, have the authority only of another's opinion. They lack the power of conviction because they are not products of personal experience. The information is seldom understood sufficiently well by parents and pupils to lead to intelligent choice of courses.

For more satisfactory results in the educational placement of pupils, the school must explore individual differences "by means of material in itself worth while." The school must further "reveal by material otherwise justifiable the possibilities in the major fields of learning." By virtue, therefore, of the third and fourth purposes of the junior high schools, pupils are convinced, first, that the present school work is worth while for them because it appeals to their aptitudes, and, secondly, that educational advancement is advisable because they have a vision from experience of its possibilities as applied to themselves. Therefore, as previously shown, the single curriculum type in the program of studies must be replaced by a constants-with-variables type. The latter is impracticable in the grammar school.

**Extension of Practical Arts.** Manual training and home economics are offered in the grammar school curriculum upon a scale determined

again by unavoidable limitations. The prevocational and vocational facilities of the junior high school provide, as shown above, wider opportunities and more effective education for both those who continue and those who drop out.

**Educational Gains and Professional Satisfaction in Concentration Upon Elementary Education in a Six-Year Elementary School.** The singleness of purpose, which both the elementary school and the first unit of the secondary school can give to their own distinct objectives in accord with accepted educational theory, can most effectively be secured under separate organizations. The grammar school in the former eight-four division has been compelled to accept the inevitable criticism of over-emphasizing either the elementary school or the early adolescent grades of the seventh and eighth. Relieved of the seventh and eighth grades, the elementary school can concentrate with singleness of purpose upon elementary school problems. While the initial reaction of the grammar school may not favor the transfer of its two upper grades to the junior high school, yet the experience of every school system organized on the six-three-three or six-six plan is conclusive evidence, after a period of years, of the greater effectiveness of the elementary unit of six grades. Therefore, the ultimate reaction of the grammar school becomes favorable to the reorganization by reason of the greater professional satisfaction which comes with increased efficiency.

**Improvement of Disciplinary Situation.** In his discussion of the improvement of the disciplinary situation, Leonard V. Koos (*The Junior High School*, p. 73) makes the following statement, the significance of which becomes evident when the change has once been made from an eight-year to a six-year organization: "A significant factor in improving disciplinary conditions must be the opportunities which reorganization provides for gradually shifting the burden of responsibility to the pupil himself. The conditions allowing for the shift of responsibility are to be inferred from the mode of administration of programs of study which open to the pupil some choice in the subjects he is to pursue. This, joined with the indirect but far-reaching influence of a curriculum made up more largely of activities to the effectual performance of which the pupil is motivated, gives promise of real disciplinary progress."

**Social Integration.** In relation to the increased social integration of the division into the elementary and junior high schools, Dr. Koos (page 75) declares: "Under the eight-year elementary-school plan it is a very common experience to find social, recreational, and athletic organizations limited solely to the pupils of the upper grades, evidencing a line of cleavage already present. The relative homogeneity of the junior high school group will accelerate the growth of this vital phase

of school life. Incidentally, the removal of the upper grades from the elementary grades will leave a more homogenous group in them and offer the opportunities of better development of social, recreative, and athletic activities below the seventh grade. Nor should we leave unmentioned the advantage to ninth-grade pupils of removal from a four-year school in which, because of their immaturity, almost all opportunity along these lines is wrested from them by upper-class men to a school in whose social activities they may more nearly realize themselves. At the same time, on account of their nearness of age, the pupils of the ninth grade will not similarly overshadow those in the grades below them."

**Conclusion.** For the past four years the Holmes Junior High School has been in operation, as an experimental center, to determine to what extent the junior high school could improve education in the intermediate period. It has reasonably demonstrated that educational reorganization, in accordance with accepted educational theory, can be achieved by the junior high school. It is highly important that Philadelphia accept and extend the results of its experiment. (See recommendation following this section.)

Each new junior high school will relieve over-crowded elementary schools in its own community by receiving their seventh and eighth grades. It will provide relief to the present senior high school congestion by including the ninth year. Further, the junior high school will partially provide for the rapidly increasing high school enrollment.

Each junior high school will become the center of a group of contributing elementary schools and each senior high school in turn will become the center of a group of contributing junior high schools. Thus can Philadelphia both solve its building problems and at the same time promote reorganization in accordance with accepted educational principles. Philadelphia has itself tested these principles in the light of actual experience and demonstrated that they are worthy of acceptance as safe guides for its future educational development.

### RECOMMENDATION

Relief to the present congested conditions prevailing in elementary and senior high schools in Philadelphia should, so far as possible, be secured by the building of new junior high school centers rather than by additions to buildings already of sufficient capacity for the greatest degree of educational efficiency.*

* See Addenda.

## RECAPITULATION OF RECOMMENDATIONS

1. Either the jurisdiction of the present associate superintendent should be extended to the junior high school or such control should be delegated to an assistant of his own staff.

2. The present plan of conferences between junior and senior high schools should be extended, under the initiative of the Department of Superintendence, to each secondary school district when additional junior high schools are organized.

3. Some federation of secondary school districts should be effected which will be representative of each junior and senior high school.

4. Revision of the courses of study should be undertaken by representatives of the Department of Superintendence, and of junior and senior high school principals, heads of departments and teachers.

5. The coördination of junior and senior high schools should be maintained by a uniform and effective policy of supervision, which shall be equally representative of the Department of Superintendence and of junior and senior high school principals and heads of departments.

6. Other recommendations of modification of the present practice in supervision of secondary schools, made in other chapters of the survey, should be applied to the junior high schools.

7. There should be an increase in the teaching staff, to the extent of permitting an average class enrollment of 35 pupils, as soon as building facilities permit or relief is provided by another junior high school in West Philadelphia.

8. The time of the teacher of English who has charge of dramatics and rehearsals should be equally divided between English teaching and dramatics.

9. The head teacher should be recognized as vice-principal and full time should be given to administration.

10. In connection with the summer school, specific reports of the needs of each pupil should be made by the Holmes Junior High School to the teachers of the summer school. These reports should be detailed to the end that the actual remedial work of the summer school may effect in Holmes Junior High School reclassification with full grade programs.

11. Opportunity or restoration classes should be included as permanent factors in the organization; further, these remedial and preventive measures in subject failures should be extended to all major subjects in the seventh, eighth, and ninth years

12. The present term "record keeper" should be abandoned and another more significant term be adopted. This report suggests one other term, viz., the home-room counselor; others equally significant can be selected. It is further recommended that associate home-room counselors include all subject teachers not assigned as home-room

counselors and that these associate counselors be assigned to classes of the semester prior to, or during the semester of initial choice of electives.

13. In further revision of the Latin course of study, consideration should be given so far as possible to the following values:

(1) The practical values as, for example, the use of Latin in explaining English derivatives, in spelling, etc.

(2) The development of a habit of intense application in the solution of difficult problems.

(3) The cultural values, as, for example, the insight afforded into the civilization of ancient Rome, and the development of a feeling for good English, etc.

14. The course in mathematics should be gradually revised to include general mathematics in the seventh, eighth, and ninth years.

15. A library for reference and circulation purposes should be established in each junior high school; further, the library should be placed under the charge of a trained librarian.

16. Ancient history of the ninth year should be transferred to an earlier grade including only such parts of Ancient History as are essential to develop a background for American History. The Ancient History of the ninth year should be replaced by a course in economic civics. When revision is next undertaken, it is recommended that the term "Social Studies" be adopted to cover the whole course of history, community civics, vocational civics, and economic civics.

17. A reorganization of the program of studies should be undertaken with the view of providing elective subjects in the present single curriculum of required subjects.

18. Beginning with the high seventh, exploratory courses should be introduced into the program of studies. The consequent widening of the range of contact will effect a transitional stage from the restricted single curriculum of the elementary school, through a modified type of a single curriculum enriched by exploratory courses to a subsequent constants-with-variables type of curriculum. The reorganization should proceed by gradual development but it should, however, continue through the next few years.

19. In foreign language courses the time allotment should be reduced from five periods to three periods a week in the eighth year.

20. The foreign language courses, later in the reorganization, should be postponed to the second semester of the eighth year and then offered as an elective. Time will be secured by this means for the introduction of other exploratory courses in the first semester of the eighth year.

21. An introductory and exploratory commercial course, of three periods a week, should be required of all pupils in the first semester of the eighth year. This course should include Commercial Arithmetic,

Junior Business Training, and Business Writing, as recommended in the chapter of this survey on Commercial Education.

22. Additional building facilities and time allotment should be made for Home Economics to the end that home management, home budgets, nursing, laundry and other aspects of home training may be extended.

23. As soon as building conditions will warrant, the present Mechanic Arts Courses should be extended to include metal working, elementary machine shop practice or sheet metal work and printing, thus increasing the present offerings of woodworking, electricity, and mechanical drawing.

24. It is recommended that the following summary of the five purposes of the junior high school be accepted as Philadelphia's program in its junior high school development:

(1) Low seventh semester should become a period of adjustment.
(2) The high seventh and low eighth semesters should become a year of try-out.
(3) Promotion during the try-out year should be based on major branches and not on exploratory courses.
(4) The high eighth semester should become a period of provisional choice of electives to test choice by actual experience.
(5) Guidance and educational placement, i. e., choice of electives, should be the primary objectives of the seventh and eighth grades.
(6) An educational program for the faculty should be adopted to provide training through service which is, at present, the only resource in training junior high school teachers.
(7) The guidance program of the Holmes Junior High School should be adopted in other Philadelphia junior high schools.
(8) Guidance classes with a definite course of educational and vocational information should be introduced into the program of studies.
(9) Exploration of pupils' aptitudes and revelation of higher fields of learning should be concurrently undertaken.
(10) The ninth year should become a year of stimulation to educational advance. Partial differentiation should be introduced as a transitional period to the senior high school.

25. Particular attention should be given in the Junior High School development of Philadelphia to the following considerations:

(1) The junior high school should become a contributing educational factor in the prevention of vocational misfits and the consequent undermining of civic mindedness.

(2) The variations of community needs in Philadelphia should require variations in junior high school types of organization.
(3) The democracy of the junior high school should be preserved by equalization of educational opportunity to pupils of all types of social and economic conditions.
(4) Preparation for junior occupations should be undertaken when alternatives of leaving school or receiving such preparation become unavoidable.
(5) The educational value of vocational facilities, which are provided for drop-outs from school, should be available to the continuants in school.
(6) All junior high schools should recognize that educational advancement is frequently stimulated by occupational training.
(7) Occupational training for drop-outs from school should be accepted as an unavoidable exception to the generally accepted principle of deferring vocational decisions.

26. The junior high school should become a part of the special field for adolescent activities as junior citizens; further, that such activities should become an integral part of the program of studies with definite time allotment.

27. The Holmes Junior High School program of school socialization, with modifications suggested below, should be accepted as the program for other junior high schools in Philadelphia:

(1) Each class should be organized as a unit of pupil coöperative government.
(2) Suggestions on service of each pupil officer in the home-room class and in the Industrious Citizens' Union should be added to present duties.
(3) Officers holding same office, should be organized for purposes of instruction, maintenance of interest, and mutual improvement of service to class and school.

28. Philadelphia should give consideration to the following extensions of educational opportunities for early adolescence by reason of a change of organization from an eight-year elementary school to a six-three-three organization:

(1) Introduction of high school subjects into the seventh and eighth years.
(2) Promotion by subjects.
(3) Exploration of individual differences and revelation of major educational activities in higher institutions.
(4) Extension of practical arts.
(5) Increase of efficiency in both the elementary school of six years and the junior school of three years.

(6) Improvement of disciplinary situation.
(7) Social integration in both the elementary and junior high schools.

29. Relief to the present congested conditions prevailing in elementary and senior high school in Philadelphia should, so far as possible, be secured by the building of new junior high school centers rather than by addition to buildings already of sufficient capacity for the greatest degree of educational efficiency.

## ADDENDA

1. The Associate Superintendent, with the recent growth in the numbers of junior high schools, has given in 1921 and 1922 more of his personal attention both to the supervision of the junior high schools and to the reorganization of the program of studies and courses of study. He has actively participated in the initial organization of the four junior high schools established since the survey began. The Department of Superintendence has coöperated in the constructive plans for new junior high school buildings, in the remodelling of elementary schools for junior high school purposes and in the organization of the program of studies and administration of junior high schools. The Superintendent of Schools has given his hearty endorsement to and his active coöperation in the junior high school movement of Philadelphia.

2. This suggestion has been made effective since the survey began. The conferences have been continued; a joint committee, composed of the associate superintendent in charge of secondary schools, representatives of junior and senior high schools and subject directors, have reorganized the program of studies. Committees of teachers in the Holmes Junior High School with the coöperation of the senior high schools have reorganized courses of study. Further committees representative of junior and senior high schools with the coöperation of the Department of Superintendence are conducting studies in further reorganization in the program of studies and in the courses of study.

3. Subject-promotion has been gradually extended in actual practice since the survey began. Remedial and preventive measures in subject non-promotion are being placed in successful operation.

4. Opportunity classes have been rapidly expanded at the Holmes Junior High School in 1921 and 1922. Similar classes are also in process of organization at the other junior high schools established in September, 1921. The principle of coaching non-promoted and retarded pupils has been adopted and is enthusiastically endorsed by the Department of Superintendence and by the administrative and instructional staffs of the junior high schools.

5. The greater function of the home-room teacher has been accepted in principle by the junior high schools in their reorganized rosters of 1921–22. A weekly home-room period has been very effectively operated at the Holmes Junior High School. This experiment is worthy of the careful study of the other junior high schools; some of the latter have already made considerable progress in the realization of the greater purposes of home-room organization.

6. Since the survey began a faculty educational program has been continuously followed at the Holmes Junior High School in a study of the above principles fundamental to the organization of the program of studies and of the courses of study. These principles have been accepted as the basis of revision of the courses and are, at the time of the publication of the survey, being incorporated in the revised courses of study. This coöperation of junior high schools with senior high schools under the leadership of the Department of Superintendence is heartily commended.

7. The junior high school program of studies is gradually being expanded into the constants-with-variables type. The joint committee and committees on courses of study have been at work upon this problem since the beginning of the survey. Commercial courses are being introduced into the program of studies, practical arts have been expanded and a large variety of educational and vocational contacts has been incorporated in the activities program, particularly in the expansion of the club organization.

8. Beginning with January, 1921, the educational program for the Faculty of the Holmes Junior High School has been expanded into a weekly program for the purposes suggested.

9. The new junior high schools opened since the survey began are offering a wider range of practical arts than is possible with the limited space and facilities at the Holmes Junior High School. The work for boys has been expanded to include some metal working with electricity, wood working and mechanical drawing. The building plans for the new junior high schools to be constructed within the next two years afford opportunities for the expansion of industrial arts into vocational training for those pupils who must seek vocational placement during or at the close of the junior high school period.

10. In the interim between the beginning of the survey and its publication there has been a well-organized expansion of the school activities program. The Homes Junior High School has developed an organization of clubs which will be a distinct contribution to junior high school socialization not only in Philadelphia but also to the junior high school movement at large. It is the further recommendation of this survey that the club organization of the Holmes Junior High

School be given publicity either in some local publication in Philadelphia or in some national educational publication.

11. In the period following the survey, the following junior high schools have been opened in Philadelphia:

Mitchell Junior High School (1921).
Tilden Junior High School (1921).
Thomas Junior High School (1921).
Stetson Junior High School (1922).

The following junior high schools are projected for the next two years. These schools will be constructed from plans which have been in the process of making for the past three years, antedating even the beginning of the survey:

Junior High School (the first new building) at Twenty-fourth Street and Snyder Avenue.
Junior High School at Fifty-fourth and Warrington Streets.
Junior High School at Thirteenth and Louden Streets.
Junior-Senior High School at Roxborough.

Additional acknowledgments of steps taken in 1921 and 1922 by the Holmes Junior High School to comply with the recommendations of the survey are made in the text.

# PART II

## CHAPTER I

### THE TRAINING OF TEACHERS

The two outstanding features of the training of teachers for the schools of Philadelphia are: (1) The early establishment and continuous maintenence of a normal school to which until recently only young women were admitted, and (2) an effort peculiar to Philadelphia to induce young men to become teachers in the elementary schools by preparing them for this service in a separate school maintained for the purpose and known as the School of Pedagogy. It is necessary to a full understanding of what is now being done in the training of teachers to present a brief history of these two institutions.

**Philadelphia Normal School.** The Monitorial System of teaching, popularized in England by Bell and Lancaster, was brought to America by the latter shortly after the beginning of the nineteenth century and was accepted generally throughout Pennsylvania as a cheap and effective method of providing elementary education for the masses.

In April, 1818, the Legislature established the "First School District," creating a public system of education in the "City and County" of Philadelphia. Other districts in the State were added shortly afterward and the law required the maintenance of these schools on the Lancastrian plan. In October of the year 1818 a "model school" was established for the purpose of training the student monitors for teaching service in the schools of the First District.

This school was opened in the building on Chester (now Darien) Street north of Race Street and was the first public school for the training of teachers in the United States. In 1836 the Legislature annulled the requirement of using the Lancastrian system in the schools of the State, but the plan with certain modifications still furnished the model of preparing teachers for service in the elementary schools.

In 1848 the Controllers reorganized the "Model School" and changed its name to the "Normal School." The scope of its work was also enlarged to include a two years' course, including practice teaching in the "School of Practice," so-called for the first time in the report of the Controllers of that year. In 1854 the school had outgrown its first home and had to be removed to a new building on Sargent (now Spring Garden) Street near Tenth. This building still stands and is the property of the Board of Education.

Advancing years demanded larger provision, and in 1876 the school was again moved to a new building at Seventeenth and Spring Garden Streets. The course from this time covered three years of academic or preparatory work, representing the high school provision of that period, and a postgraduate year for the special training of teachers. At this date also the School of Practice which had been for a time abandoned was reëstablished. During the interval, practice teaching was conducted by using lower classes in the Normal School for that purpose.

In 1893 the academic and normal departments of the school were separated and enlarged, the former becoming a four-year high school and remaining in the building at Seventeenth and Spring Garden Streets, and the latter, enlarged to a two-year course, was removed to its present location. Since the School of Pedagogy was closed young men have been admitted to the Normal School.

**School of Pedagogy.** This school was opened October 5, 1891, and closed in 1918. It was established by the Board of Public Education on the recommendation of Dr. Edward Brooks, then superintendent of schools, who gave it its name and outlined for it a course of study. Coeducation above the elementary school was neither in favor nor in practice in Philadelphia at that time. Consequently the School of Pedagogy was established in connection with the Central High School for Boys.

Although for the first four years of its existence it was nominally organized and administered as a separate institution, its course of instruction was carried on in the Central High School building by selected members of the faculty of that school who gave part of their time to the work. The course at first was one year in length. It was independent of and in addition to the four-year high school course and included instruction in the history of education, psychology, methods of teaching, philosophy of education, constitutional and school law, drawing and modeling, natural history, school organization and management, history and civics, natural science, physics, and later, English language and literature.

In June, 1896, the School of Pedagogy was reorganized as a graduate department of the Central High School. The course of study was lengthened to two years and the work placed in charge of a principal.

The School of Practice consisted at first of two grammar grade classes and was organized in the Central High School building in September, 1900. It was transferred, September 8, 1906, to a building at 1333–35 Spring Garden Street; and in September, 1907, was again moved, this time to 1327 Spring Garden Street. In 1910 the adjoining property was purchased and the School of Practice was developed into

complete grammar school for boys with all grades from the fifth to the eighth.

In February, 1913, by action of the Board of Education, the School of Pedagogy was completely separated from the Central High School. The course of study remained at two years throughout this period, but the theoretical and practical work of the course was improved through better organization and differentiation and more specialized teaching. The observation work was also developed in specially designated schools in various sections of the city.

On September 8, 1913, the School of Pedagogy was transferred to its own building on Twelfth Street above Spring Garden, and in October, 1914, the Northwest School at Race Street below Fifteenth and its annexes were made the Practice School of the School of Pedagogy.

The enrollment at this new practice school was at that time 574, grammar; 671, primary; 119, kindergarten; and 116 children of special classes. Consequently this school offered a complete field for experimentation and observation purposes, including all the phases of elementary education. With the transfer of the School of Pedagogy to its own building and the subsequent accession of the Northwest School as a practice school the two-year course of study reached its highest efficiency.

The curriculum, however, was overcrowded. To relieve the pressure and to offer better opportunity for specialized training, the Board of Education on the recommendation of the superintendent of schools extended the teacher training courses at both the School of Pedagogy and the Normal School to two and a half years, beginning with the classes that entered on the first of February, 1917. With the entry of the United States into the World War, however, it became necessary to suspend the operation of the extended course of study and to continue only the two-year course of training which had previously been in force. With the development of war conditions, the enrollment of the School of Pedagogy was soon reduced from more than 170 students to less than 70 in September, 1918. When the Draft Act was passed requiring the services of all young men over eighteen years of age, it became necessary to close the school entirely.

**Service of These Training Schools to the Public School System of Philadelphia.** It is difficult to appraise the influence of the Normal School and the School of Pedagogy on the public school system of Philadelphia. In its twenty-seven years of service the School of Pedagogy graduated 603 young men, 52 per cent of whom are still in the service of the schools. The handbook of the Board of Public Education for 1920 shows that out of a total of 89 men principals of elementary

schools, 57, or 64 per cent, were graduates of the School of Pedagogy. Two graduates were associate superintendents; one, the Chief Examiner; one, the Director of the Bureau of Compulsory Attendance; one, the principal of an Adjunct School of Practice; five, district superintendents; fifty-two, instructors in the high schools; two, heads of departments in high schools; four, instructors in the Normal School; seven, assistants to the directors of special subjects; and 179, elementary teachers. This is, indeed, a remarkable showing and indicates that the majority of all the men who are now engaged in administration and supervision in the Department of Instruction are graduates of the School of Pedagogy. Fifty per cent of the associate superintendents, 62.5 per cent of the district superintendents, and 64 per cent of the men principals of elementary schools have been supplied by this institution.

Turning to the record of the Normal School, we note that its graduates are also found in every department and in every type of school work in the system, although they do not hold so prominent a place or exert so great an influence on the determination of school policies or administration and supervision as do the graduates of the School of Pedagogy. Many of the graduates of the Normal School are now teaching in the high schools and are serving as special supervisors, while approximately 83 per cent of all the elementary teachers of the city were obtained from this source. During the period the School of Pedagogy was in existence the Normal School graduated more than 5000 young women, of whom approximately 4000 are still in the service. Nearly all of these are elementary teachers, although a few of them are found in every branch of the service, including administration, high school teaching, and supervision.

The total number of Normal School graduates in active service on April 1, 1921, was 4897, and of graduates of the School of Pedagogy 397. The Normal School graduates had served the city an average of 15.7 years, and those of the School of Pedagogy an average of 8 years. Of the former group, 20 had served 50 or more years; 105, 45 or more years; and 240, 40 or more years. Of the latter, 3 had taught 27 years; 5, 26 years; and 30, 20 years or more.

This brief analysis of the personnel of the Department of Instruction of the Philadelphia system reveals the interesting fact that in proportion to their numbers and length of service the graduates of the School of Pedagogy have advanced more rapidly and at present occupy a much larger percentage of the more important positions of the system than the graduates of the Normal School.

This does not necessarily mean, however, that the young men who came into the system through the School of Pedagogy were intellectually superior to the young women who during the same period graduated

from the Normal School, nor does it necessarily indicate that their professional training was superior. As a matter of fact, both of these claims may actually be true, but the present distribution of graduates of these institutions is not to be accounted for in this way.

Several influences have been at work to produce this result. Among them may be mentioned the following:

1. The establishment of the School of Pedagogy grew out of a sense of the need of men as teachers in the upper grades of the elementary schools. It was felt that men would exert a more wholesome influence than women, especially on the boys of the seventh and eighth grades, who on account of the excessive retardation at that time were much older than the children of these grades are at present. On account of irregularity of attendance, poor methods of instruction, less cordial relations between pupil and teacher, and the generally uninteresting character of the course of study, the problem of discipline in these grades was much more serious then than now.

2. For many years after the School of Pedagogy came into being, salaries paid to teachers and especially to male teachers in the seventh and eighth grades were, by action of the Board of Education, considerably higher than those paid in all grades below the seventh, and the students of the School of Pedagogy were definitely encouraged to fit themselves for these two grades. In the early history of this school, vacancies which occurred in the seventh and eighth grades of boys' grammar schools could be filled only by those who held what was known as the "Collegiate Certificate," which was granted only to a graduate of the School of Pedagogy. Later, these graduates were also appointed to the other grades of the boys' grammar schools, finally to all mixed classes of grammar grade, and occasionally to grades below the fifth.

3. The young men who were being trained in the School of Pedagogy were also encouraged in various ways to prepare themselves for teaching positions in the high schools and for administrative and supervisory positions in the elementary school. Consequently, many of these graduates who had come to look upon teaching as their permanent calling began at once to fit themselves for these higher positions.

4. There is also evidence that prior to the law which since 1915 (Code 1919, Section 2229) has required that all promotions and appointments to higher positions, except those of associate superintendents, district superintendents, heads of departments, principals of high schools, normal schools, and manual training schools, shall be made from eligible lists, graduates of the School of Pedagogy were often especially favored in appointments to administrative positions. Prior to 1906 all teachers and principals of elementary schools were appointed by the Ward Boards of Education. No one could be appointed to these positions,

however, who did not hold a teacher's certificate or a principal's certificate, respectively. In other words, the Central Board of Education fixed the qualifications and issued the certificates, and the local boards made the appointments from those holding these certificates. The appointments were not made from eligible lists arranged in order of merit, but usually went to the person having the strongest political influence. For example, a girl graduated at the head of her class at the Normal School might have failed for some time to get an appointment while a girl who graduated at the bottom of her class might have been the first to be appointed. After the first superintendent of schools, Dr. James McAllister, was appointed in 1883, a new form of certificate, obtainable by examination, was provided for the position of supervising principal. Holders of this certificate were elected by local boards thereafter until 1906. They were not selected in order of standing and the organization of a school under the supervising principal was contingent upon the recommendation of the local board.

**Present Organization and Work of the Normal School.—Admission Requirements.** Students are admitted twice a year, in September and in February. All graduates of the public high schools of the city are eligible to any course in the Normal School on certificate, provided the high school course completed by the applicant has included the following minimum requirements: English, 28 points (a point is one period a week of prepared work or two periods a week of unprepared work per term); history, 16 points; civics, 4 points; foreign languages, 16 points; algebra, 8 points; hygiene, 1 point; physics, or chemistry, or an additional foreign language, 8 points; drawing, 4 points; music, 2 points; physical training, 7 points—a total of 81 points. A regulation of the Board of Education also requires that each applicant shall have maintained a general average of 75 per cent throughout the high school course. On account of the shortage of teachers and the reduced enrollment in the Normal School this regulation has not for some time been enforced. On recommendation of the principal of a high school, applicants are sometimes admitted who have not met these minimum requirements.

The graduates of standard four-year high schools, other than the public high schools of Philadelphia, may also be admitted upon the approval of the special committee of the Board of Education having charge of the Normal School and upon the presentation of evidence of qualifications equal to the minimum requirements.

All applicants must furnish a certificate of physical fitness and those who are not *bona fide* residents of Philadelphia must pay a tuition fee of $75 a year and sign an agreement to teach at least two years in the public schools of the city.

**Present Enrollment.** It is obvious from the above requirements that the Normal School will enroll very few students who have not come from the public high schools of the city. The records show that for the past four years only 24 such students have been admitted, or an average of three each term, or 2.4 per cent.

The total enrollment on January 21, 1921, was 496, 30 of whom were men. In the courses which are open only to women, the enrollment was as follows: Grade, 398; Kindergarten, 26; Household Arts, 42. The maintenance of these distinct courses with the present small enrollment necessitates in certain subjects some extremely small classes. The roster for the term closing in June, 1921, an analysis of which is given below, shows the number of such classes and indicates the heavy expense of maintaining them. The total enrollment is at present only 62½ per cent of what it was before the war, and the number graduating each term is only sufficient to supply about half of the demand for new teachers in the elementary schools.

The following table, showing the number of classes having from 1 to 126 members, is taken from the roster for the term closing in June, 1921.

TABLE SHOWING NUMBER OF CLASSES HAVING FROM 1 TO 126 MEMBERS

| Number of Students in Class. | Number of Classes. | Number of Students in Class. | Number of Classes. | Number of Students in Class. | Number of Classes. |
|---|---|---|---|---|---|
| 2 | 3 | 24 | 47 | 43 | 3 |
| 3 | 7 | 25 | 27 | 45 | 3 |
| 4 | 6 | 26 | 28 | 46 | 1 |
| 7 | 6 | 27 | 52 | 48 | 1 |
| 8 | 3 | 28 | 30 | 49 | 2 |
| 9 | 33 | 30 | 26 | 51 | 1 |
| 11 | 41 | 31 | 4 | 54 | 1 |
| 12 | 5 | 32 | 8 | 56 | 2 |
| 13 | 31 | 33 | 19 | 64 | 1 |
| 14 | 73 | 34 | 11 | 69 | 2 |
| 15 | 34 | 35 | 8 | 70 | 2 |
| 16 | 3 | 36 | 11 | 75 | 1 |
| 17 | 7 | 37 | 3 | 77 | 1 |
| 18 | 7 | 38 | 4 | 84 | 1 |
| 19 | 6 | 39 | 2 | 115 | 1 |
| 20 | 24 | 40 | 3 | 126 | 1 |
| 22 | 36 | 41 | 6 | | |
| 23 | 18 | 42 | 4 | | |

The above table shows 16 classes per week having an enrollment of 5 or less, 42 with an enrollment of between 6 and 10, and 184 between 11 and 15. It also indicates 14 classes with more than 50 students each, and there is one class of advanced juniors in psychology with 126 members. Seventy-five per cent of the classes have between 10 and 30 members, inclusive; 8.6 per cent under 10, and 10 per cent above 40. Twenty-two classes average 4 students; 58 classes, 7; 99 classes, less than 9 students; and 208 classes, 11 students.

**Courses of Study.** As indicated above, the Normal School at present provides four distinct courses, each of which requires two years. There are a Grade course for men, similar in its content and purpose to that formerly maintained in the School of Pedagogy, and three courses for women, namely, Grade, Kindergarten,* and Household Arts.

The subjects included in each of these courses and the time devoted to each subject are shown in the following table which has been compiled from an outline of the courses of study found on page 8 of the bulletin entitled "Information Concerning Philadelphia Normal School" and bearing the date of 1920. The figures given in the table indicate the total number of "points" required for the subjects, and opposite are placed the figures in each of the four courses of study. A point means one forty-five-minute recitation period per week for a full term. The table shows, for example, that the work required in arithmetic is equivalent to six points or six recitations per week for a school term in the Grade Course for Women, while in the Grade Course for Men it is five points, in the Household Arts Course two points, and in the Kindergarten Course, one point.

TIME ALLOTMENT TO THE VARIOUS SUBJECTS BY POINTS IN THE COURSES OF STUDY

| Courses of Study. | Women. | | | Men. |
|---|---|---|---|---|
| | Grade. | Household Arts. | Kindergarten. | Grade. |
| Arithmetic | 6 | 2 | 1 | 5 |
| Art | 6 | 8 | 4 | 6 |
| Civics | 2 | .. | 1 | 5 |
| English | 6 | 4 | 4 | 9 |
| Geography | 6 | 5 | 2 | 4 |
| History | 7 | .. | 2 | 7 |
| Hygiene | 8 | 6 | 8 | 6 |
| Kindergarten Philosophy | 3 | .. | 27 | .. |
| Library Practice | 1 | 1 | 1 | .. |
| Manual Training | 4 | .. | 4 | .. |
| Music | 4 | .. | 4 | 3 |
| Physical Training | 8 | .. | 4 | 6 |
| Reading | 5 | .. | 4 | 3 |
| Writing | 2 | .. | 2 | 2 |
| History of Education | 8 | 4 | 8 | 4 |
| Observation and Practice | 1 | 20 | 1 | 31 |
| Principles of Teaching | 1 | 5 | 1 | 4 |
| Psychology | 14 | 10 | 14 | 10 |
| Economics | .. | 2 | .. | 3 |
| Dietetics | .. | 4 | .. | .. |
| Foods | .. | 16 | .. | .. |
| Household Furnishing | .. | 1 | .. | .. |
| Millinery | .. | 2 | .. | .. |
| Sewing | .. | 10 | .. | .. |
| Textiles | .. | 1 | .. | .. |
| Biology | 5 | 4 | 3 | 4 |
| Chemistry | 8 | 9 | .. | .. |
| Nature Study | 1 | .. | 3 | .. |
| Physics | 8 | 4 | 8 | .. |
| Social Problems | 2 | 2 | 2 | 2 |
| Electives | 12 | .. | 12 | .. |
| Total | 129 | 130 | 120 | 114 |

*See Addendum.

It should be stated that the table is not quite complete as regards the observation and practice teaching during the senior year. In order that the faculty of the Normal School may have a uniform number of classes during the term, the plan is to divide the senior class into two equal divisions. During the first term of the senior year two sections, or one-half the class, go into the School of Observation and Practice, while the others pursue academic studies. At the end of the quarter the divisions alternate, thus giving the entire "under-senior" class the experience of guided practice during that term.

This will account for the fact that according to the table the students in the Grade and Kindergarten courses appear to have only one point of observation and practice work for the entire course.

The subjects set forth for advanced seniors in these two courses apply only to the division of the advanced senior class which remains in the Normal School building, while the students of the other half are in the Adjunct Schools of Practice. The members of each division of advanced seniors devote all of their time for a full quarter to observation and practice work.

Students in the Grade Course for Women do not have 8 points of both physics and chemistry, but have a choice of 8 points in either of these subjects or four points in both of them.

The Grade Course for Men, as it appears in this table on Time Allotment, is misleading and needs explanation. It is essentially the course as planned for the first group of men who entered the Normal School from the School of Pedagogy and who had credit for a half or more of their work in the School of Pedagogy before the War caused it to be disbanded. It was, therefore, necessary in their case to make certain adjustments in carrying their work to a finish, among which was the placing of their entire practice experience in the last term. The present tendency is toward the establishment of uniformity in the course for both sexes, and hereafter, if this policy is to be continued, the practice work for the young men will be identical with that for the young women: namely, three days for nine weeks in the third term; then nine weeks of further academic and method study at the Normal; followed by nine weeks of practice in the adjunct schools; and concluding with nine weeks devoted to content and method study, together with some substitute experience in the elementary schools of the city. It is a part of the plan that the men should not take the kindergarten-primary work in the same way and with the same intensity that it is pursued by the women. The same may be said of the light manual work needed for the first three grades. The emphasis on principles of teaching assigned to men in the first term, as shown in the table, is intended to enlarge their point of view and start them definitely on the road toward a future principalship.

With these facts set forth, the information in the table will be clear and will indicate the comparative emphasis upon the various subjects in the different courses.

The school week consists of five days of six forty-five minute periods each, and the bulletin referred to above shows that in all courses the time of the student is completely taken up with recitations and with observation and practice work throughout the entire length of the course. At no point in any of the courses does the student have, during the regular school day, any free time for the use of the library or for independent study.

**Faculty.—Manner of Selection.** The teachers, both of the Normal School and of the Practice Schools are, with a few exceptions, products of the Philadelphia School System. Out of a total of 153 teachers in these schools, but 8 are men, including the principal of the Normal School and the principal of one of the adjunct schools of practice. The faculty of the Normal School have for the most part reached their present positions by promotion from the practice schools. Recently teachers have been selected from eligible lists for the high schools, and in this way a few have been introduced into the faculty who came originally from outside the city. The teachers for the practice schools were selected entirely from the elementary schools of Philadelphia. These have been chosen because of their experience and skill in teaching, no standard of scholarship or professional training being required beyond that which is expected of teachers of other elementary schools. It should be stated also that several teachers in the Normal School have been selected from practice schools because of their experience and skill as teachers. In these cases, also, no standard of general or professional scholarship beyond that expected of all elementary teachers has been required. This is especially true, for example, of some of the "Methods Teachers."

**Qualifications and Experience.** The teachers of both the Normal and the Practice Schools are, with few exceptions, persons of considerable professional experience and skill in instruction. But, on the whole, it cannot be said that the standard of scholarship among the present staff of the Normal School is as high even as that maintained in the high schools of the city. The following table shows the scholarship, professional training, and experience of the present faculty.

From this table it may be seen that but 16 per cent have any educational record above a baccalaureate degree and but 20 per cent have even this seemingly fundamental requirement. Admitting that the staffs of the practice schools would be less likely to have completed college courses, we still find in the faculty of the Normal School proper,

including the schools of practice, 41 per cent without a college degree. This compares very unfavorably with the faculties of the several city high schools and is unworthy of the exceedingly important function which this school performs in the city school system.

EDUCATIONAL RECORD, POST HIGH SCHOOL

| | Normal Teachers. | Per Cent. | Training Teachers. | Per Cent. | Critic Teachers. | Per Cent. | Total. | Per Cent. |
|---|---|---|---|---|---|---|---|---|
| Normal School only | 1 | 3 | 20 | 21 | .. | .. | 21 | 15 |
| Normal School with additional collegiate work but no degree | 14 | 38 | 73 | 74 | 3 | 75 | 90 | 65 |
| College graduate Bachelor's degree | 3 | 8 | 2 | 2 | .. | .. | 5 | 4 |
| Graduate school but not Master's degree | 11 | 30 | 2 | 2 | 1 | 25 | 14 | 10 |
| Master's degree and above | 8 | 21 | 1 | 1 | .. | .. | 9 | 6 |
| Totals | 37 | 100 | 98 | 100 | 4 | 100 | 139 | 100 |

EXPERIENCE RECORD

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Outside of Philadelphia | 5 | 14 | 9 | 8 | 1 | 25 | 15 | 10 |
| In Philadelphia other than Normal School | 32 | 86 | 98 | 92 | 3 | 75 | 133 | 90 |
| Totals | 37 | 100 | 107 | 100 | 4 | 100 | 148 | 100 |

**The Teaching Load.** As to the number of classes assigned to each member of the faculty the load for many of the teachers is excessive, amounting in some instances to from 20 to 26 periods per week. The load is by no means equally distributed, the work of some teachers being light while that of others is far too heavy. A teacher of English has 21 classes each week, involving 159 students, or an average class membership of 26. A teacher of physical training has 23 periods with classes ranging from 14 to 115, and with a general average of 38 students to a class. A teacher of hygiene and physical training has 22 classes varying in number from 11 to 84 students. A teacher of History of Education has 23 classes ranging from 11 to 41 students. One teacher in psychology has 22 classes of from 11 to 41 members. These are examples of teachers whose weekly programs are excessive.

On the other hand there is a teacher of biology having only 9 classes per week, of 11 to 42 students, averaging 27 per class. There is a teacher of manual training having 11 classes of from 2 to 28 members, averaging 12 per class. A teacher of geography has 10 classes of from 11 to 33 members. A teacher of foods and household arts has 11 classes with from 9 to 14 students each, with an average of 12 to a class. A teacher of drawing has 9 classes per week ranging from 9 to 24 students and averaging 18 per class.

**Salaries.** The following table gives the salaries that were actually being paid to all members of the Normal School faculty for the term closing in June, 1921.

SALARIES PAID FACULTY OF THE PHILADELPHIA NORMAL SCHOOL 1920–1921

| Salaries. | Principals. | Teachers. | Salaries. | Principals. | Teachers. |
|---|---|---|---|---|---|
| $5,060 | 1 | .. | $2,242 | .. | 1 |
| 3,700 | .. | 1 | 2,072* | .. | 2 |
| 3,262 | .. | 3 | 2,040 | .. | 26 |
| 2,840 | .. | 1 | 1,989 | .. | 1 |
| 2,800 | .. | 20 | 1,908 | .. | 1 |
| 2,720 | .. | 1 | 1,880 | .. | 2 |
| 2,543 | .. | 2 | 1,792 | .. | 1 |
| 2,540 | .. | 1 | 1,600 | .. | 2 |
| 2,475 | .. | 1 | 1,560 | .. | 1 |
| 2,458 | .. | 2 | 1,380 | .. | 2 |
| 2,440 | .. | 1 | 1,000 | .. | 1 |
| 2,300 | .. | 2 | | | |

* Median.

From this it will be seen that the maximum salary is $3700 and the minimum $1000, with the average salary of $2326 and a median salary of $2072.

By a comparison of the facts set forth in this table with the salaries paid for the same term in the high schools of the city, it will be seen that the average for the Normal School is below that for the high schools. These salaries are very much below what is now being paid in city teachers' colleges and normal schools in many of the larger American cities. Salaries paid, for example, to the members of the faculty of one of these other schools, for the same term, range all the way from $2750 minimum to $4000, maximum, with pro rata salaries paid to the same teachers for extension courses given during the summer term. These summer salaries amount to a minimum of $343.75 and a maximum of $500 for a term of five weeks. The average salary paid for the regular school year is a little more than $3307 and the median is $3200.

**Character and Progress of Students.** The students of the Normal School are secured almost wholly from graduates of the public high schools of the city. The number admitted from other sources averages, over a period of four years, as previously stated, 2.4 per cent of the total enrollment. The urgent need of teachers in the system has tended within the last three years to lower the standard of admission. It has been thought advisable for a time at least to set aside the minimum requirements and accept any graduates of the city high schools who might wish to enter.

Notwithstanding this fact, a careful observation gives one a favorable impression of the spirit and energy of the present student body. For a number of years a high percentage of the students enrolled have been able to complete the course on time. The percentage of students not promoted was 5 per cent in 1916, 4 per cent in 1917, 2.7 per cent in 1918, 2.1 per cent in 1919, and 4.1 per cent in 1920. From January, 1916, to June, 1920, 1355 students were graduated from all classes.

During that period only 69 advanced seniors failed of promotion. In the case of all these, the work was continued and the students graduated during the following term.

The following table gives the number of students who were dropped from the rolls and the cause in each case for the five years beginning in 1916. A considerable percentage of those in the column headed "Other Reasons" for the years 1918–19 went into the service of our country.

NUMBER OF STUDENTS DROPPED FROM ROLLS AND CAUSE

| Year. | Illness. | Married. | Other Reasons. | Non-promotion. | Working. | Other Schools. | Death. |
|---|---|---|---|---|---|---|---|
| 1916 | 33 | 1 | 13 | 1 | 2 | 2 | .. |
| 1917 | 15 | 1 | 9 | 3 | 17 | 7 | .. |
| 1918 | 26 | .. | 33* | 1 | 20 | 9 | 2 |
| 1919 | 13 | 1 | 20* | .. | 6 | 4 | .. |
| 1920 | 9 | 2 | 13 | 2 | 3 | 3 | 3 |
| Total | 96 | 5 | 88 | 7 | 48 | 25 | 5 |

* Many engaged in some form of War Service.

TABLE SHOWING TOTAL DROPPED AND NUMBER BELONGING

| Year. | Total. | Average Number Belongng. |
|---|---|---|
| 1916 | 52 | 691 |
| 1917 | 52 | 613 |
| 1918 | 91 | 504 |
| 1919 | 44 | 421 |
| 1920 | 35 | 459 |
| Total | 274 | 2,688 |

## CRITICAL OBSERVATIONS AND RECOMMENDATIONS

The faculties of the Normal School, the School of Observation and Practice, and the two Adjunct Practice Schools show almost without exception a deep interest in their work and a fine professional spirit. There is evident appreciation of the great opportunity that is theirs and their devotion to their work and their students is worthy of high commendation. There is evidence among them of a strong belief in the excellence of the present organization and administration of the Normal School. At the same time their conception of the great importance to Philadelphia of the work which they are appointed to do inclines the majority of the faculty to be open-minded and receptive to every suggestion of importance that is offered.

The present plan of organization and method of administering the work of training teachers in Philadelphia is the outgrowth of long years of experience and consequently is pretty thoroughly established. Nevertheless, it is but fair to say that long-continued custom has given to some

features of the present organization a sanction which a critical study of the problem cannot justify.

The graduates of the Normal School that have recently entered the service give evidence of having been well trained for their work and show as a rule an excellent professional spirit both in classroom instruction and in relation to their associates. This fact is frequently commented upon in the reports of those members of the Survey Staff whose opportunity it was to study directly the methods and results in the teaching of the various subjects in the elementary curriculum. In brief, the Normal School of Philadelphia is doing good work but there are many respects in which this work may be improved.

The following recommendations are presented not so much as criticisms of what is now being done as in the way of constructive suggestions as to how the scope and influence of the Normal School should be extended and its work improved. What follows, therefore, will consist of (a) certain critical suggestions concerning the work as it is now being done and (b) a comprehensive plan for a School of Education which will more nearly meet the professional needs of Philadelphia's public school system.

**Critical Suggestions Concerning the Present Practice in the Training of Teachers.** 1. The present administration of the Normal School by a special committee of the Board of Education should be abandoned and the responsibility of formulating its policies, defining its functions, determining its organization, and directing its administration, should be placed directly in professional hands. This responsibility fundamentally belongs to the superintendent of instruction and cannot be wisely or safely assumed by the Board of Education. It is, however, the duty of the Board to hold the superintendent strictly accountable for the wisdom and success with which this responsibility is met.

2. In its proper administration the Normal School should not be classed with the high schools and placed under the supervision of the associate superintendent assigned to the high schools as has been the practice in the past. The Normal School is far more intimately related to the elementary than to the high schools of the city. The recent placing of the Normal School under the associate superintendent who is responsible for the supervision of instruction in the elementary schools is eminently wise and this policy should be continued.

3. The School of Observation and Practice and the Adjunct Schools of Practice, if the present plan of using these schools as instruments for training students in observation and practice is to be continued, should be considered as organic parts of the Normal School and should therefore be under the responsible supervision of the principal of the Normal

School. The present plan involves divided responsibility and considerable waste through lost motion and lack of suitable coördination.

4. The past practice in filling vacancies in the Normal School should be immediately abandoned. There can be no more far-reaching and vitally important influence in the improvement of teaching service in the elementary schools of Philadelphia than the Normal School. There is no place in the system where a dollar properly invested will yield a larger return.

Standard qualifications for those who may be appointed to positions in the faculty should be defined and this standard should be much above the average qualifications of the present staff. The idea that vacancies in the faculty must necessarily be filled by promotion from the ranks of those already employed in the schools of the city is a great mistake. Much higher salaries than those now in force should be paid for persons who measure up to this higher standard and all vacancies should be filled by the appointment of the strongest and best qualified persons that can anywhere be found regardless of whether they do or do not belong to the city school system.

The slogan "Philadelphia for Philadelphians" stands for a very short-sighted and foolish policy when the educational welfare of Philadelphia's more than 200,000 school children is at stake. The Philadelphia Normal School does not exist for the sake of its faculty, or even for the sake of the young men and women of Philadelphia who go there to be trained, but for the sake of the great host of Philadelphia's children whose parents maintain it by taxation.

Every member of the faculty, whether man or woman—and there should be as many men as women—should command the confidence and respect of the entire corps of teachers, supervisors, and principals of the city because he or she, by virtue of professional training, personal qualifications, general education and professional experience and skill, deserves to be held in such esteem. To secure persons of this type it will frequently be necessary to pay salaries as high as $5000 a year or even more.

5. The average teaching load as it is at present should be reduced and the total burden more equally distributed. The average load should not be more than 16 hours per week, a part of which should be available for extension classes for the training of teachers in service for the reason and according to the plan that will be set forth later in this report. Every teacher of the Normal and Practice School faculties should have time and opportunity for professional study and the work should be so arranged as to make such study not only possible but necessary. There is nothing more important to the Normal School faculty than continual professional and cultural growth.

6. The present cost for each student per year is approximately $400. This should and can be reduced, even assuming that recommendations 4 and 5 stated above are put into effect. There are entirely too many very small classes in the present organization and the program is too generally overloaded. This arises out of a number of conditions which ought to be changed.

First, the distinction between so-called academic, professional and practical aspects of the courses is too sharply drawn and too rigidly maintained. This leads to a highly complicated program in which academic or subject teachers, methods teachers, critic teachers and training teachers each play a part. The outcome is an artificial and unnecessary differentiation of functions resulting in a mechanically arranged program of studies. What is needed is a vitalizing principle of selection and organization of the content of instruction—a principle based upon modern theory and a thorough study of the needs of the elementary schools.

All courses offered should be in reality professional courses. Courses in such subjects as geography, history, and arithmetic if properly organized will emphasize both the knowledge of subject matter and the method of presenting it. The approach to such subjects should be distinctly professional. The question is not (a) how shall this content be organized with reference to traditional conceptions of its relative values and the methods of learning it and then the question (b) how shall it be organized with reference to the best methods of teaching it, *but these two questions should be combined in the same course taught by one and the same teacher.* The cultural value of the course is not sacrificed but rather increased by this plan and it is possible so to organize and professionalize the content of such courses that they can be taught on a collegiate level. If the work were organized according to this plan, the number of teachers needed would be materially reduced.

Second, too many subjects are included in all of the four courses of study. Some of the present subjects, a mere modicum of which can be taught in the limited time allowed, should be removed from each of the courses and the student's time concentrated more fully and effectively upon subjects that are essential. The student's program is now too heavily loaded and her attention too much distracted with the multiplicity of subjects taught to enable her to do the most effective work. There is no opportunity during the course of the school day for any student to use the library for independent self-directed study.

By consulting the table on page 129 which sets forth the subjects included and the time allotted to each in the four courses of study, it will be seen that such reduction can be safely made to the advantage rather than to the disadvantage of the student. The reduction of the

student's load to the extent of providing one free period for study each day, would decrease the number of recitations now being conducted by more than 14 per cent and, consequently, the total teaching load by that amount.

The table referred to shows eight points in the history of education in the Grade Courses for women and the Kindergarten Course, and four points in the Household Arts Course and the Grade Course for men. This could very properly be reduced to four points or less for all of these courses.

There is very little real advantage to a teacher preparing herself for instruction in the elementary grades to spend time on Egyptian, Greek, Roman and Mediæval education. These subjects, so far as they have value, might be reserved for extension courses given as senior college work after the teacher has secured her appointment in the schools.

It is difficult to see why eight points in physics or chemistry should be required in the Grade Course for women who are fitting themselves chiefly for instruction in the primary grades in the elementary schools and eight points of physics required of kindergarten teachers, especially when neither physics nor chemistry is required in the Grade Course for men who are preparing themselves to teach in the higher grades of the elementary schools.

The practice of allowing electives to the extent of twelve points in the Grade Course for women teachers and in the Kindergarten Course also tends to increase the number of classes required. The permission of electives to this extent in these two courses can hardly be justified when all election is excluded in the Household Arts Course and the Grade Course for women. The practice of allowing any electives in a two-year course designed to prepare teachers for the elementary schools is of extremely doubtful value. Such courses should rather be definitely prescribed throughout. When this is done it will be possible to dispense with extremely small classes and to divide the students more equally.

Third, it should be noted that at present there are 42 enrolled in the Household Arts Course distributed as follows: 6 advanced seniors, 11 under-seniors, 11 advanced juniors, and 14 under-juniors. It would be a wise policy to discontinue this course as a regular part of the work of the Normal School and provide, for this branch of the service, extension courses given to teachers already in the schools who may wish to take up this type of work. It would be much less expensive to the system to offer somewhat larger salaries to teachers of this subject to make it worth while for an experienced teacher to prepare herself through extension work to enter this field.

There are but 26 students enrolled in the Kindergarten Course, 2 of whom are advanced seniors, 15 under-seniors, 9 advanced juniors, and none under-juniors.

The enrollment in this course is too small to permit of its economical administration and there is in any event serious doubt of the wisdom of continuing this course in its present form.

The modern tendency of educational theories and practices is to see in the kindergarten a sub-primary period not differing greatly in the character of instruction from what the primary grades themselves should be and also to recognize the need for a reorganization of primary education to include a wide measure of the play spirit and free activity characteristic of the kindergarten.* Furthermore, the refinements which have been made in the technique of the teaching process in recent years suggest the inadvisability of any teacher training institution attempting longer to train any student for a field of service as broad as the entire elementary school curriculum.

The course of study, materials for instruction, and the teaching process in the sixth grade present problems almost wholly different from those found in the first grade; and it has come to be a fairly well established principle for teacher training institutions that the instruction be differentiated for students preparing for the upper and lower grades of the elementary school.

It is, therefore, recommended that the training for elementary teachers given at the Philadelphia Normal School be differentiated into two curriculums: the first in preparation for the teaching of the kindergarten and the first three grades, and the second in preparation for the work of the remaining grades of the elementary school.

If the practice of placing all recent graduates of the Philadelphia Normal School into the primary grades be discontinued, it is probable that very large proportions of the graduates of differentiated curriculums can be placed in the field for which they have made special preparation and as no salary inducement exists to draw them from the field of their choice, there would be a tendency to retain experienced teachers in the primary grades and distribute the inexperienced teachers throughout the whole field of the elementary school.

Opportunity should be offered, however, for further training in service for such teachers as find themselves out of adjustment or sympathy with the field for which they have been especially prepared in order that they may qualify for another field equally with those who were regularly trained therefor.

7. A strong effort should be made to increase the enrollment of both men and women, though at the same time care should be taken to select

*See Addendum.

the best available material. The sources of the best students should be carefully studied and a plan devised that will eliminate the undesirable. Studies of this problem in other cities show that of the students coming from the graduating classes of the large public high schools those who have, for the full four-year course, consistently ranked near the bottom of their classes, make undesirable students in the Normal School. In one such city, 90 per cent of all who failed at the Normal School or as teachers, ranked in the lowest third of their classes at the high school.

Such students are undesirable also because of the influence which they exert on other students. Their frequent failures and consequent complaints of unfair treatment by the faculty tend to produce an unfortunate spirit and attitude in the school as a whole. Having for four years been schooled to failure and low standing in the high schools, they have usually come to look upon themselves as naturally inferior to others. If a difficulty does not yield at their first attempt to meet it they are not disposed to try again. If they succeed eventually in getting through the Normal School and into the ranks of the teachers, they show little tendency to continue their effort toward a better general and professional education.

On the other hand, those students of the Normal School who have ranked high in their classes at high school show a very different attitude. Having been accustomed to success and having proper confidence in their own ability as compared with that of others they are disposed to try again and again if their first efforts in any direction are not successful. When they become teachers a very large percentage of them seek opportunities for further growth and improvement. It is for other reasons also better to base admission requirements on the student's relative rank in the high school course than upon a certain average percentage below which the student will not be admitted.

To place a reasonable premium on admission to the Normal School does not in practice tend to reduce but rather to increase the total enrollment. The present requirement, however, that students from outside of Philadelphia must pay a nominal tuition fee of $75 is wrong and should be abolished. The best possible students should be obtained no matter from what sources they may come.

The law which applies to the elementary and secondary pupils that those who come from outside the city shall pay tuition does not apply to the Normal School. The latter is not, in fact, a public school in the same sense that the elementary and high schools are public. They are provided for by a state law and must be maintained. Such schools are creatures of the state. The city Normal School is a creature of the Board of Education and can be abolished by the Board if it sees fit. It is public only in the sense that it is supported at public expense and paid

for out of the city's public school funds and must be administered to the advantage of all the people of the city, but it is not public in respect to the question as to who may attend it.

Its legal justification is based upon the condition that the Board of Education is able to render better service to the children of the elementary and high schools of the city through the maintenance at public expense of such an institution than it could do without it. If a sufficient number of thoroughly competent teachers could be secured by going into the open market for the supply, the city would not be justified in maintaining a normal school for the training of teachers at all.

Having decided, therefore, to establish the Normal School the Board of Education should administer it to secure the best possible supply of teachers for the schools of the city. If it should happen that better qualified and more desirable students could be obtained from outside of Philadelphia than from sources within the city, the Board of Education should raise no artificial barrier that would tend to exclude such students.

8. The plan that has apparently for some time been in operation of assigning all new graduates of the Grade Course for women at the Normal School to the first three grades of the elementary schools should be discontinued. This would naturally result from the adoption of a differentiated program of studies as recommended above.

9. The future development of the Normal School should contemplate two possibilities. First, the length of the courses may be extended to three years without materially changing the present requirements for admission and, secondly, the courses may be made two years in length and the admission requirements changed so as to secure an increasingly better quality of students.

The first plan has the advantage of giving a longer period of training to those who are to become teachers in the elementary schools. It has the disadvantage of being the much more expensive of the two. The second plan has the advantage of being less expensive and of securing very much better students.

For the present it is recommended that the second plan be adopted and that the admission requirements be determined by a thoroughgoing study of the best sources of material from which, up to this time, the Normal School has secured its students. Inasmuch as by far the larger part of the students have been graduates of the Philadelphia high schools it is recommended that as soon as possible only graduates of these high schools who have ranked in the upper half or upper two-thirds of their classes should be admitted to the Normal School without examination as to scholarship.

In this way those who have stood near the bottom of their classes would be eliminated. Such persons as a rule do not become satisfactory teachers and show too little disposition to continue their development after they have secured a teaching position. Opportunity for such students to enter the Normal School, however, should always be provided in the form of an examination which is in general sufficiently difficult to exclude any high school graduate who is not so well qualified as the poorest of those who are admitted from the high schools without examination.

Students from outside the city who possess the proper entrance qualifications and who are obviously good material should be definitely encouraged to enter the Normal School.

Experience has shown that graduates of city high schools who have maintained throughout the course a high standing in their classes are unusually desirable material out of which to develop progressive and efficient teachers. Such persons have been schooled to the habit of success and show a decided disposition to continue their education after they have been appointed as teachers. They are the type with whom it is possible to undertake any task for the improvement of the schools with definite hope of success.

All candidates for admission to the Normal School should be required to pass a physical examination and those who are physically not suited to become teachers should be excluded.

Whether the normal school course be two or three years in length, there is a distinct obligation upon the city of Philadelphia to see that there are provided for the teachers in service facilities for their further general and professional education and that these facilities be accessible and attractive in order to encourage them to continue their education to the extent of securing a college degree. The primary consideration should be the improvement of teaching and supervisory service. The question, therefore, which needs to be answered is this: How may the general and cultural education of elementary teachers be improved and their efficiency increased without at the same time decreasing their interest in elementary education?

In keeping with this objective, courses for teachers in service should be administered in such a way as to cause elementary teachers to appreciate the dignity and worth of elementary education and to increase their desire to continue to serve in one capacity or another in this field. This should lead to the lengthening of the average term of service of teachers in elementary education by increasing their appreciation and that of the public of the value of such service.

In some respects the most important work of education in the interests of American citizenship and the promotion of the ideals of

American democracy lies in the field of elementary education. The great social, industrial, and economic changes that have taken place and are still going on greatly intensify the need of coöperation by which the work of our common life may be done without unnecessary friction and loss of energy through misunderstanding and the inability of the rank and file of people to coöperate effectively. Consequently, a large feature of the work of education must be that of training the individual so that he may be able and disposed to coöperate with considerable groups of persons and also with the whole community in common undertakings that tend to promote the general welfare.

The necessary foundations for such education must be laid in childhood in the homes of the people and in the elementary schools. The common dispositions, attitudes of mind, standards of value and perspectives that are necessary to that social solidarity that is essential to the continued integrity and success of American democracy can only be well established in the early years of life. It is, therefore, immensely important that we should have a correct philosophy of education so far as our elementary schools are concerned and that the policy of these schools and their administration shall be in keeping with the essential interests of American life.

If this outcome is to be secured through the proper management of public school systems in cities like Philadelphia, it is essential not only that superintendents and boards of education should be able to formulate and put into operation the educational policies necessary to this end but it is equally essential that the entire teaching staff shall be so trained as to appreciate this point of view. It is of the utmost importance that the rank and file of teachers in the elementary schools shall understand these matters to such an extent as to coöperate happily and wholeheartedly in realizing under the leadership that ought to be provided, the great fundamental purpose of the elementary schools.

In order to realize this comprehensive purpose it will be necessary to provide courses of instruction of distinctly college grade that will, on the one hand, be highly professional and on the other, give the teacher a right perspective of the place and function of the elementary school in modern life. The principles, therefore, which should determine the selection of the courses to be offered and the desirable organization of the materials to be included in them call chiefly for the following courses:

**Courses in the professionalized subject matter of elementary education.**

**Courses in the general theory of education.** These should be more advanced than the corresponding courses in the Normal School. They should deal with the theory of education in general and with the prin-

ciples of learning, teaching and testing. Such courses would include educational psychology, principles of teaching, and the testing of the general intelligence and achievements of children. In this group also should be included courses in the supervision and administration of elementary schools and the principles that determine the selection, organization and relative values of the content of the elementary curriculum.

**Cultural courses.** These should be designed to broaden and liberalize the general education of elementary teachers, with emphasis upon subjects that will help them to understand and interpret the major activities and interests of modern life and especially of life in Philadelphia. They would include such subjects as history and the social sciences, the fine and practical arts, economics, industry, commerce, government and politics. In each of them emphasis should be placed upon the industrial, commercial, economic, civic, and social conditions and opportunities of Philadelphia. It is important that the children of the public schools shall be trained to understand and appreciate the opportunities and responsibilities of life in their own city. This will result almost as a matter of course if the teaching staff are interested in these matters and are well informed concerning them. Courses of this character will serve to enhance the teacher's appreciation of the work which she is doing in the elementary schools because they will help her to see the significance of this work in the future life and development of the city.

**Courses designed to prepare teachers for special types of service needed, actually or prospectively, in the school system.** As the system develops there will inevitably be greater differentiation of functions and types of service, requiring special equipment and training on the part of those who are to discharge them. Each of these types will require special qualifications for which higher salaries shall be paid than those of the regular elementary teachers.

Courses should, therefore, be provided that will open the way for elementary teachers and supervisors to fit themselves for these special opportunities. Courses should be offered, for example, which will prepare teachers in service for any of the following positions: principals of elementary schools, teachers in junior and senior high schools, and special forms of supervision in operation in Philadelphia, such as supervision of music, art, physical education, etc.

It is extremely important in so large a system that a supply of well-trained persons should always be on hand to fill vacancies that may occur and to meet any emergencies that may arise due to changes of the course of study or the reorganization of any part of the work that

may be found necessary in carrying out the policy of the superintendent and the Board of Education.

Courses should also be provided for teachers of the deaf, feeble-minded, anemic, tubercular, crippled, blind, speech defective, abnormally bright and specially gifted children, in short, of every type of unusual child for which special provision needs to be made.

In planning such courses the needs of the night schools, continuation schools, and other forms of educational extension should not be overlooked. In a system like that of Philadelphia, equipped with such a school of education there is no excuse for not having ready in advance persons prepared for any kind of service that will be needed on account of revision of the courses of study or the introduction of new activities.

There should be a direct and intimate relationship between the superintendent of schools, the associate superintendent in charge of elementary instruction, and the head of the school of education so that the latter may be at all times well informed as to the superintendent's policy and the present and prospective needs of the system in the training of teachers and others employed in the schools.

**Courses for other employees than teachers.** Courses should also be provided for any group of employees that may need them to increase their value to the system. Special courses may be found desirable for supervisors, attendance officers, nurses, doctors, janitors, and others.

**Courses for Principals.** These should be of two types: (1) those designed to increase their administrative and supervisory ability and prepare them to fill more satisfactorily the important positions which they occupy in the school system; and (2) courses which will enable those principals who do not hold college degrees to work toward that end without the necessity of leaving the service for this purpose.

It is highly desirable that the condition in which all principals of elementary schools shall have received an education at least equivalent to that of a college degree shall be established in Philadelphia as soon as possible. If the principals are to merit the confidence and respect of their teachers who are continuing their general and professional education, they must show themselves at least equally progressive.

**Graduate Courses.** For those junior and senior high school teachers, teachers in the Normal School, and those in the elementary schools who have taken a college degree to continue their professional and general education, graduate courses in education and in the fields of the teachers' interest should be provided. In the courses provided for high school teachers, emphasis should be placed upon the theory and

practice of teaching high school subjects with the object in view of improving high school instruction.

Provision should also be made for research in the elementary and secondary fields. Problems of the curriculum and of supervision and instruction that are especially important in the development of the schools should be defined and a coöperative effort made to reach their satisfactory solution. Critical study should be made of the effectiveness of present methods of instruction to determine their immediate and and their persistent results and the whole work should be so organized as to stimulate and develop a strong professional spirit among the high school teachers, principals and supervisors of the city. Just what courses should be offered and how the work should be organized will require careful and continuous study as the school system advances.

The courses should be given after school hours and on Saturdays throughout the regular school year. The work should be organized in two terms, corresponding to those of the elementary and secondary schools. On account of the great area covered by the city, courses should when necessary be offered at centers in public school buildings that are most convenient to those who are enrolled in them.

**Special Lecture Courses.** The most competent men and women in all aspects of American elementary and secondary education should be secured for special short lecture courses, thus making accessible to the teachers of Philadelphia the best thought and experience in education that the whole country affords. In this way professional inbreeding may be to a considerable degree prevented. There should be each year a summer school of six weeks.

Careful records of the work of all students who are preparing to take a college degree should be kept in accordance with practices of the best universities. All the work done for which college credit is allowed should be kept strictly up to the best college standards of scholarship and training.

All important courses leading to a degree or preparing for special types of service in the Philadelphia schools should be schemed out in advance for a period of six or eight years so that teachers employed in the schools can plan definitely in advance to complete courses leading to these objectives with full confidence that the work can be done without the necessity of discontinuing their employment in the schools.

In order to accomplish the objectives set forth in this report three alternative plans are suggested.

First. A comprehensive plan of coöperation between all the teacher training institutions of the city of Philadelphia and especially the School of Education of the University of Pennsylvania, and the School of Education of Temple University, with the Philadelphia Normal School.

This plan should be under the authority and direction of the superintendent of schools and the principal of the Normal School, coöperating with the heads of the several institutions.

Under this plan the Normal School should ultimately advance to the status of a college of coeducation and in the meantime should offer professional courses of college grade to teachers in service that would be recognized by the University of Pennsylvania, Temple University, and other similar institutions as discharging part of the requirement for the baccalaureate degree.

Second. The development of the Philadelphia Normal School into a college of education that will fully meet the professional needs of the public school system and provide for the professional training of both men and women. This institution should consist of a junior college, a senior college, and a graduate division.

The chief function of the junior college should be the professional preparation of new teachers for the elementary schools of Philadelphia. Its course of study should be organized and administered with the needs of the elementary schools always in mind.

The fundamental purpose of the senior college would be to secure for the teachers of Philadelphia the opportunity to continue their general and professional education to the point of securing the baccalaureate degree as well as to provide for students of other colleges the professional training which is necessary for secondary school teaching and positions of supervision and administration.

The function of the graduate division should be chiefly that of encouraging junior and senior high school teachers, teachers in the college of education, principals and supervisors to advance their professional efficiency and to undertake under expert guidance detailed and mature studies in the field of education.

Third. The translation of the Philadelphia Normal School into a state normal school controlled and supported by the State. Such a translation would offer a ready opportunity for development into a teachers' college which would function primarily for the public school system of the city of Philadelphia, providing for it a large measure of its annual need of new teachers and at the same time setting up a broader sphere of influence and providing a wider outlook than is normally possible in a school maintained exclusively by and for a single community however large.

The training of teachers has been generally recognized as a State function. The provincialism and inbreeding so unfortunately characteristic of the Philadelphia Normal School of today would probably be best overcome by translating this school into a state institution. Activities and types of training perhaps unwarranted in an institution devoted

exclusively to the training of elementary school teachers for a single school system would be entirely proper in an institution serving a larger field and supported by State funds. At the same time such an institution located in and functioning for the third largest city of the country would provide a unique opportunity for studies in educational statistics, in organization and administration, in the grading of children, and in the technique of the teaching process.

Under any of these plans the necessity must be emphasized for providing a faculty of very high quality comparable in all respects to the faculties of the better teacher training schools and colleges of the country with a scholarship, professional training, experience, and ability that will command the respect and confidence of the entire corps of Philadelphia teachers. The head of such a school should be correspondingly trained, experienced and competent. In order to provide such a situation salaries must be paid that are also comparable to the compensation given in the best institutions of similar grade in the country in order that teachers with the proper qualifications may be attracted to this school. Such a faculty in such an institution would offer the opportunity for the training of leaders in the field of public education throughout the State and bring these prospective leaders into contact with all the varieties of experience possible only in a great city school system.

## ADDENDUM

It is reported by the Philadelphia authorities that the students now training for the kindergarten field in the Philadelphia Normal School are trained to teach the lower primary grades as well as the kindergarten.

# CHAPTER II

## EXAMINATION SYSTEM FOR TEACHERS

**Introductory.—Method of Gathering Data.** The report on the examination system for teachers in the public schools of Philadelphia is based on data obtained from interviews with the Director of Examinations, the Associate Superintendent for Elementary Schools, the Associate Superintendent for High Schools, high school principals, heads of departments in high schools, and supervising principals; from a study of all printed or mimeographed materials pertaining to the examination system; from a study of examination questions and examination papers; and finally, from observing examinations given for elementary and secondary teachers.

**Examinations: For Whom Intended.** All applicants for entrance to teaching positions in the public schools of Philadelphia, except the graduates of the Philadelphia Normal School, must pass both an oral and a written examination before they are eligible to appointment. The girls who are graduated from the City Normal School are given permanent elementary certificates unless they have been weak in practice teaching; the men are given trial elementary certificates upon graduation.

**Eligible Lists.** The names of all persons passing the examination for elementary school positions and the names of graduates of the City Normal School are placed on one eligible list in the order of their standings. These standings are the examination averages for the candidates coming into the city schools from the outside and the graduation marks for the Normal School graduates.

A similar eligible list is prepared for the high school teachers of the city. Each person passing the examinations is given a final rating and his name is placed on the list in the order of his rating.

**Purposes of the Examinations.** The examination system was organized for the purpose of making eligible lists in accordance with the legal requirements (Section 2229 of the Code) (a) for initial appointments, and (b) for promotion within the system.

### Entrance Requirements and Examinations

**I. Common Entrance Requirements for All Teachers.**

A. Age limit for assignment, fifty years.

B. Present a certificate of physical fitness on a blank furnished by the office of the Director of Examinations.
C. Present proof of citizenship on a blank furnished by the office of the Director of Examinations.
D. File a formal application on a blank furnished by the office of the Director of Examinations.

**II. For Elementary Schools.**

A. For grade school teachers of general education subjects.
   1. Present proof of graduation from an approved high school having a course of study covering four years, or equivalent education.
   2. Present for approval either a Permanent State Certificate or a Normal School Diploma.

B. For mechanic arts teachers, grades 7 and 8.
   1. Entrance requirements. Present proof of graduation from an approved trade school or from a mechanic arts or manual training course in an approved high school.
   2. Preliminary examinations.
      a. Candidates who do not present the requirements above may in lieu thereof, present proof of an apprenticeship followed by at least two years of trade experience.
      b. A preliminary examination in English and mathematics will be given these applicants provided they have filed their application blanks, certificates of physical fitness, and certificates of citizenship.
      c. Candidates who obtain a rating of seventy or over in the preliminary examination will be admitted to the technical examination.
   3. Technical examination.
      a. The examination will be partly written and partly oral, and will embrace:
         (1) Demonstration of practical shop work.
         (2) Paper on principles of trade and methods of teaching.
         (3) Oral examination with reference to training, experience, and personal qualifications.
      b. The names of candidates who obtain a rating of seventy will be placed on the eligible list for a period of three years, provided, however, that no person will be appointed to a position who has attained the age of fifty years.

C. For elementary industrial arts for boys, grades 5 and 6.
   1. Entrance requirements.
      a. Present proof of graduation from an approved high school having a course of study covering four years, or equivalent education.
      b. Present proof of having completed a full two-year course in an approved training school for teachers, or an approved college, or equivalent.
      c. Present proof of at least two units in industrial arts or industrial education or equivalent.
      d. Present proof of at least one year of successful teaching experience.
   2. Scope of examination.
      a. The examination will be partly written and partly oral, and will embrace:
         (1) Oral examination.
         (2) Methods of teaching and management.
         (3) Technical examination: (a) Theory of elementary industrial arts; (b) Practical work in weaving, stenciling, elementary woodwork, bookbinding, etc.
      b. The names of candidates who obtain a rating of seventy will be placed on the eligible list for a period of three years, provided, however, that no person will be appointed to a position who has attained the age of fifty years.

D. For sewing in elementary schools.
   1. Entrance requirements.
      a. Present proof of graduation from an approved high school, having a course of study covering four years, or satisfactory evidence of at least an equivalent academic education.
      b. Present proof of having completed an approved two-year normal course in domestic arts, or equivalent education.
   2. Scope of examination.
      a. The examination will be partly written and partly oral, and will embrace:
         (1) Technical examination in sewing and pattern-drafting.
         (2) Methods of teaching and management.
         (3) Oral examination.

b. Candidates obtaining an average of seventy or over in the examination will have their names placed upon the eligible list. The names of candidates who enroll, but do not attend the examination, will not be continued on file, unless the application be renewed.

E. For domestic science in elementary schools.

1. Entrance requirements.

a. Present proof of graduation from an approved high school having a course of study covering four years, or equivalent.

b. Present proof of graduation from an approved two-year normal course in domestic science.

2. Scope of examination.

a. The examination will be partly written and partly oral, and will embrace:

(1) Technical examination.

(2) Household economy—including the preparation and cost of food, the physiology and chemistry of nutrition, household chemistry, laundry work, home sanitation, the care of young infants, household accounts, etc.

(3) Methods of teaching and management.

(4) Oral examination.

**III. For Junior High Schools.**

A. Statement of requirements for Philadelphia teachers only.

1. Entrance requirements.

a. Philadelphia public school teachers who have had at least two years' experience in public schools in grades above the fourth, prior to November 1, 1920, may be admitted to the examination in any subject. Applicants for the subjects named below who do not meet this requirement must meet requirements as follows:

(1) Applicants for drawing, domestic science, domestic arts, and physical education must (a) be graduates of an approved four-year high school; (b) have had an approved two-year normal course in the subject.

(2) Applicants for music must (a) have had approved training in music; (b) have had two years of approved experience in teaching music.

(3) Applicants for mechanic arts must (a) be graduates of an approved high or trade school; (b)

have had a two-year normal training course, or two years trade experience following apprenticeship; and (c) two years of approved teaching experience in mechanic arts.

2. Scope of examination.
   a. Each applicant will be examined in one subject only. The examinations in each subject will include questions on method as well as subject matter. In subjects 8 to 15, inclusive, the written work will be supplemented by a practical demonstration.
   b. Oral examination.
   c. Written examination.
      (1) English—Composition, grammar, rhetoric, literature.
      (2) History—American, European; civics.
      (3) Mathematics—General and business arithmetic, algebra, plane geometry.
      (4) General science and geography.
      (5) French—Grammar, composition, literature, conversational command of the language and familiarity with the "direct method."
      (6) Spanish—Grammar, composition, literature, conversational command of the language and familiarity with the "direct method."
      (7) Latin—Grammar, composition, literature, translation from standard texts.
      (8) Drawing—Decorative design, freehand drawing, perspective, color work.
      (9) Drawing—Mechanical and perspective.
      (10) Music—Sight reading, theory, familiarity with standard compositions.
      (11) Domestic science—Food-constituents, cost and preparation, dietaries; home sanitation; household accounting.
      (12) Domestic arts—Textiles, dressmaking, drafting and design, millinery.
      (13) Mechanic arts—Woodwork.
      (14) Mechanic arts—Electrical construction.
      (15) Physical education—Theory, physiology and hygiene (candidates must come prepared to do gymnasium work).

B. Statement of requirements for applicants not in the service of the Philadelphia public schools.

1. Entrance requirements.
   a. File an application on the blank furnished by this office.
   b. File a certificate of physical fitness on the blank furnished by this office.
   c. File a certificate of citizenship on the blank furnished by this office.
   d. Present:
      (1) Proof of graduation from an approved four-year high school.
      (2) Proof of two years of approved experience in grades above the fourth in public schools, or proof of two years of approved teaching experience in the special subject.
      (3) Proof of special training as indicated below:
      For English, history, mathematics, general science and geography, French, Spanish, or Latin, at least thirty units of approved college work. For drawing, domestic science, domestic arts, or physical education, an approved two-year normal course in the subject. For music, approved training in music. For mechanic arts, two-year normal training course or two years of trade experience following apprenticeship.
2. Scope of examination.
   a. Same as for examination for teaching positions in Philadelphia high schools.
   b. The names of candidates who obtain a rating of seventy, including not less than sixty for the written paper (and practical demonstration where required), will be placed on the eligible list for a period of three years, provided, however, that no person will be appointed to a position who has attained the age of fifty years.

**IV. For High Schools for Boys.**

A. Entrance requirements.
   1. For mathematics, science, English, ancient and modern languages, history and commerce, present proof of graduation from an approved college or equivalent education. A technical course in college will not be accepted except in the field to which the technical course is related.
   2. For drawing.
      a. Present proof of graduation from an approved high school, or equivalent education.

b. Present proof of four years of approved specialized training in an art or technical school, studio or drafting room.

3. For industrial arts.
   a. Present proof of graduation from an approved high, trade, or technical school, or equivalent education.
   b. Present proof of four years of practical experience.
4. For physical education.
   a. Present proof of graduation from an approved high school, or equivalent education.
   b. Present proof of having completed a two-year course in an approved college or normal school of physical training, or equivalent training.

B. Scope of examination.
1. The examination will be partly written and partly oral.
   a. Oral examinations.
      (1) Methods of teaching and management.
      (2) The technical examination for each candidate will be restricted to the subjects of the department in which he desires to teach, and subjects necessarily related thereto.
   b. Written examinations.
      (1) Mathematics—Algebra; plane and solid geometry; plane and spherical trigonometry; analytical geometry; calculus.
      (2) Science—Each candidate will select from the following list one science as a major and one as a minor: (a) Mathematics may be taken as a minor with physics; (b) The examination will cover the theory and practice of the sciences selected to the extent to which they are included in the courses of approved colleges.
      (3) English—Historical grammar, composition and rhetoric, English literature; American literature.
      (4) Ancient and modern languages—For any work in this department, a thorough literary idiomatic acquaintance with the English language is indispensable. Each candidate will select from the following list one language as a major and one as a minor: (a) Latin—Grammar; the works of the Greek writers at the time of Aristotle; history of Greek literature; the writing of Greek; geography of Greece and topography

of Athens; (b) French—Grammar and historical grammar; elements of Romance philology; history of French literature; the ability to write and speak French idiomatically; (c) Spanish—Grammar and historical grammar; elements of Romance philology; history of Spanish literature; the ability to write and speak Spanish fluently.

(5) History—American, English, and European, including Greek and Roman; civics, including the structure and functions of government; economics, including a discussion of practical social questions.

(6) Drawing—Each candidate will select one of the following divisions as a major and the other as a minor: (a) Representative drawing—Decorative design; freehand drawing; architectural drawing; mechanical perspective; (b) Constructive drawing—Elementary and advanced, with a knowledge of shop work, elementary mechanics and machine design.

(7) Commerce—Each candidate will select a major and a minor of the following; (a) and (b) are majors, (c), (d), (e), and (f) are minors.
(a) Stenography (Ben Pitman) and typewriting, including business correspondence: (b) Bookkeeping and accountancy, including business forms and commercial arithmetic; (c) Commercial geography and raw materials. This subject may also be selected as a major provided that stenography and typewriting or bookkeeping be selected as a minor; (d) Banking and transportation; (e) Elements of commercial and business law; (f) Penmanship may be selected as a minor with bookkeeping and accountancy only.

(8) Industrial arts—Each candidate will be required to give a practical demonstration of his efficiency in one of the following lines, and to pass a written examination on the principles underlying the work.
(a) Carpentry, patternmaking, cabinetmaking, machine construction, smithing, electrical construction, sheet metal work.

(9) Physical education—Physiology; hygiene; theory and practice of physical training and athletics.

NOTE.—The names of candidates who enroll but do not attend the examination will not be continued on file unless the application be renewed.

**V. For High Schools for Girls.**

A. Entrance requirements.

1. For mathematics, science, English, ancient and modern languages and history, present proof of graduation from an approved college, or equivalent education, and proof of the special training indicated below.

B. Special training.

1. For drawing: Approved four-year normal course in an art or technical school, or equivalent training.
2. For commerce: Two years approved commercial training, college, or training school for teachers, and two years further approved training or experience.
3. For domestic science: Approved two-year normal training course in domestic science, or equivalent training, and two years approved experience.
4. For domestic arts: Approved two-year normal training course in domestic arts, or equivalent training, and two years approved experience.
5. For physical training: Approved two-year course in a college or normal school of physical training.

C. Scope of examination.

1. Same as for teaching positions in high schools for boys except for the following exceptions:
   (a) History—American, English and general history.
   (b) Civics and economics—Civics, including the structure and functions of government; economics including discussion of practical social questions.
   (c) Drawing—Decorative design; freehand drawing, perspective; color work.
   (d) Commerce:
      (1) Stenography (Ben Pitman) and typewriting (touch system).
      (2) Bookkeeping (single and double entry), with a knowledge of card systems, higher accountancy, office practice and banking.

(3) Penmanship including theory, practice, a knowledge of business correspondence, etc., may be taken as a minor with bookkeeping.

(e) Domestic science—Food, its constituents, cost and preparation, dietetics, etc.

(f) Domestic arts—Dressmaking; drafting; cutting; machine and hand sewing; millinery; textiles, etc.

(g) Physical training—Physiology; hygiene; theory and practice of physical training.

NOTES.—The names of candidates who enroll but do not attend the examinations will not be continued on file unless the application be renewed. Persons who fail twice are not eligible for further examination. The results of the examination will be mailed to each candidate.

**Examinations for Elementary School Teachers.** The following examination given to applicants for grade school positions will serve to give an idea of the scope.

### Army Alpha Test

All applicants for teaching positions n the grade schools were given one of the army Alpha tests. The results of this test were to be used in checking against the standings arrived at from the oral and written examinations.

### English (Time—1 Hour)

1. Write an essay of approximately 250 words on any one of the following subjects:

National Prohibition
Women in Industry
The Value of the Kindergarten
The Value of Reading Fiction
Should Women Serve on Juries?

2. Discuss the content of some work of literary merit that you have read recently.

### Methods of Teaching and Class Management (Time—2 Hours)

1. Outline the initial lesson you would teach on "Long Division"; or outline the initial lesson you would teach on the "Rocky Mountains."

2. Discuss any method you have found satisfactory in teaching (a) Reading in Grades 1 and 2 or (b) Reading for appreciation in grammar grades.

Answer any two of the following questions:

3. Discuss the value of dramatization as a means of developing interest in oral English.

4. Discuss the value of (a) Supervised Study; (b) Home Study.

5. Discuss one of the following: (a) Project Problem; (b) Motivation; (c) Socialized Recitation.

**Oral Examination.** The oral tests of the eighty candidates in this examination were conducted in the following manner: The committee for oral examinations consisted of six assistant district superintendents in Philadelphia. The six men sat as one committee for thirty minutes so as to discuss the points considered in the oral examinations and arrive at a common standard of evaluation. At the end of this period the committee was divided into two groups for examination purposes. In order that the common standard of evaluation might be made as nearly the same as possible one member of each committee was shifted at the end of each half hour. This may be made clear from the following diagram:

**Full Committee**

10.00 to 10.30
No. 1
No. 2
No. 3
No. 4
No. 5
No. 6

| | 10.30 to 11.00 | 11.00 to 11.30 | 11.30 to 12.00 | 12.00 to 12.30 |
|---|---|---|---|---|
| Group I | No. 1<br>No. 2<br>No. 3 | No. 2<br>No. 3<br>No. 4 | No. 3<br>No. 4<br>No. 5 | No. 4<br>No. 5<br>No. 6 |
| Group II | No. 4<br>No. 5<br>No. 6 | No. 5<br>No. 6<br>No. 1 | No. 6<br>No. 1<br>No. 2 | No. 1<br>No. 2<br>No. 3 |

The oral examinations were conducted in a most interesting manner. Each candidate was called before the committee and asked to be seated at the end of the table. There was a decided effort to relieve the candidate of any embarrassment or feeling of being ill at ease. The committee had before it the training and experience of each applicant. What it desired most was an opportunity to evaluate the personal qualifications of the applicant and to arrive at some conclusion relative to the applicant's ability to handle well the problems that must confront a grade teacher. The questions were to the point and were so worded as to bring out the methods the applicant was accustomed to using. In

more than one instance the lack of knowledge of methods of teaching caused the candidate to receive a low rating. There was also a decided attempt to lead the candidate into discussions of problems in Americanism wherever there seemed to be the slightest indication that there might be any lack of a sympathetic attitude toward such problems.

One of the candidates admitted to the examination was physically unfit for teaching. His disability was permanent and was so serious that it necessitated the use of two crutches. He traveled with such difficulty that the examiners gave him a very low mark in his oral examination in order, if possible, to prevent his passing with an average of seventy.

The entire examination was comprehensive and fair. The examiners were sympathetic in their discussions of the candidates. While their discussion of each candidate was open and frank, each examiner marked the candidate independently.

**Weighting Examinations for Grade School Teachers.** The results of the examinations are weighted as follows:

1. A paper on English with special reference to correct expression..... Weighted 1
2. Teaching and class management..... Weighted 6
3. Oral, with reference to training, experience, personal qualifications, methods, etc..... Weighted 3

Candidates who obtain an average of 70 or over will have their names placed on the eligible list.

**Assignment.** Persons on the eligible list are assigned in the order of their position on the list. Each person is given an opportunity to limit the schools in which he is willing to accept assignment; these limitations may refer to locations, types of community, or to particular schools. Limitations as to grade are not allowed, assignment to particular grades within a school being a matter to be settled by the school principal with the approval of the district superintendent. Any person whose name is reached on the list and who declines the assignment offered retains his rank and order on the eligible list.

**Transfers.** Any teacher desiring a transfer makes a request to the associate superintendent in charge of teacher placement. Transfers take precedence over new assignments. In granting transfers to teachers their relative claims are weighed on the basis of (1) length of service in present position (2) nearness of residence to school for which application is made (3) date of application. No teacher is eligible for a transfer, however, until he has served a year in one position.

**Substitute Teachers.** Teachers holding Philadelphia certificates may be placed on the list as substitute teachers and receive four dollars a day for each day taught.

**Examination System for High School Teachers.** Before any teacher may be appointed to a high school position in Philadelphia he must pass an oral and a written examination, and must have his name placed on the eligible list for appointments.

**Written Examination.** The questions in the written examinations are formulated by a committee of the heads of the departments in the various high schools. For instance, in English, each head of the department for the high school submits one or more questions for the English examination. The heads of the English departments in conference select such questions as appeal to them as being a fair and reasonable examination for high school English teachers. This list of questions is then submitted to the examiner's office. This policy is followed in all other departments in the high schools of Philadelphia.

The papers submitted on the examination are marked by the heads of the department concerned. The median of the marks given for each question is the final rating given to the applicant for his answer to each question. Papers are carefully reviewed by the committee under the direction of the chairman, particular attention being given to papers below the passing mark.

**Oral Examination.** In all oral examinations a representative of the superintendent's office, a principal of one of the high schools, and the committee of heads of departments in the various schools in charge of the subject in which the applicant is being examined, form the examination board.

Three ratings are considered in finding the final oral rating:

(a) The median of the ratings given by the department heads.
(b) The high school principal's rating.
(c) The superintendent's rating.

The final rating is the middle mark of these three ratings.

It will be seen that by this statistical method the possibility of unfair rating is reduced to a minimum.

The oral examinations are conducted in the following manner: Each applicant upon entering the examination room is made to feel at ease, in so far as it is possible to do so. The first questions that are asked are questions that almost any candidate could answer with ease. This usually inspires in the applicant a feeling of assurance and self-confidence. As the examination progresses the questions become more difficult. Every attempt is made to bring out the best thinking on the part of the applicant.

The applicant is rated on his personal qualifications, upon his training and experience, upon his ability to express himself, upon his

ability to think clearly, on his views concerning methods, and upon his seeming general possibilities as a teacher.

The entire oral examination was so comprehensive, and so fair that there was every opportunity to arrive at a fairly accurate estimate of the candidate's possibilities as a teacher. The examiners were sympathetic in their discussion of the candidates before rating each one. The discussion of each candidate was open and frank, but each examiner marked the candidate independently. If any applicant had any qualifications that would seem to debar him absolutely from coming into the public school system in the city, he was given a low mark so that it would be difficult for his written examination to bring his rating up to the passing mark.

The passing mark in all examinations is 70. Each teacher receiving a passing mark has his name placed on the eligible list. Opposite each candidate's name on the eligible list is noted his passing rating, his experience, etc., together with a note as to any other subject in which he might, under necessity, do supplementary teaching.

**Weighting Examinations for Junior High School Teachers.** In the preparation of the eligible lists the following elements will be weighted as indicated:

| | |
|---|---|
| 1. Efficiency in present position | 5 |
| 2. Written paper, and practical demonstration where required | 3 |
| NOTE: No candidate will be listed who does not obtain a rating of at least sixty for this part of the examination. | |
| 3. Oral examination | 2 |
| Total | 10 |

**Assignment.** All assignments to new positions are made from eligible lists, the candidate standing at the top of the list being appointed, if available, except in rare cases. If a principal desired a teacher of English who could teach one or two classes in French or some similar combination, he would be allowed to pass over the candidate at the top of the list and select one further down on the eligible list, if a person capable of teaching the combination subjects could be found. The assignment must always be made in the subject in which the applicant took the examination.

**Transfers.** After a teacher has been assigned to a school he cannot be transferred to another school except by the superintendent's office. All transfers from one department to another are supposed to be on a temporary basis only.

There is no evidence of any systematic method of checking up transfers from one department to another in a school. It seems to

work out so that the principal of the school may, with the consent of the teacher to be transferred, make almost any adjustment that seems to him to the best interest of the school.

**Substitute Teachers.** The number of people used as substitute teachers in the high schools of Philadelphia has been larger than usual the last two years. The list of substitute teachers is made up of the following three groups, preference being given in selecting substitutes in the order in which the groups are named: (1) Any college graduate who presents to the associate superintendent in charge satisfactory evidence of his ability to do the work effectively; (2) seniors in the School of Education in the University of Pennsylvania; (3) any person who has taken certain subjects in college.

An examination of the substitute list revealed the fact that a college graduate can substitute in almost any subject in which he has taken a course in college. The following, which was copied from a substitute list, will make this clear:

| | Subjects in Which Allowed to Substitute. | Educational Record. | Teaching Experience. |
|---|---|---|---|
| Name of Person | Science<br>History<br>Mathematics<br>Sewing<br>Cooking<br>English | Moravian College, A.B.<br>Columbia, B.S. | 1 year junior high school<br>2 years cooking and sewing |
| Name of Person | French<br>English<br>Spanish<br>Latin<br>History of Education<br>Psychology<br>History | Bucknell, A.B. | No experience |
| Name of Person | Chemistry<br>Physics<br>Botany<br>Zoology<br>English<br>French<br>Music | Philadelphia Normal<br>University of Pennsylvania, B.S. | Country school<br>Private school |

College graduates are paid one dollar a day more than substitute teachers who are not college graduates.

**Examination System for Promotions.** Examinations for promotions are held for the following positions in Philadelphia: supervising principals, high school teachers, junior high school teachers, continuation teachers, assistants to directors (art education, vocational education, physical education, music).

**Supervising Principals.—Entrance Requirements.** 1. No person shall attend the examination who has not had four years of teaching experience in the schools of Philadelphia.

2. No person shall attend the examination who does not hold a grade or collegiate certificate issued by this Board, and who has not had at least four years of approved experience as a teacher.

**Written Examination Schedule**

| | | |
|---|---|---|
| Wednesday, February..... | 9–12 A. M..... | History of education |
| | 1– 4 P. M..... | School administration |
| Thursday, February..... | 9–12 A. M..... | Philosophy of education |
| | 1– 4 P. M..... | Class methods |
| Friday, February..... | 9–12 A. M..... | Psychology |
| | 1– 4 P. M..... | School hygiene |

**Oral Examination Committee**

(Superintendent of Schools and Associate Superintendents).

**Weighting the Examinations**

| | | | |
|---|---|---|---|
| History of education..... | 1 | Class methods..... | 1 |
| School administration..... | 1 | Psychology..... | 1 |
| Philosophy of education..... | 1 | School hygiene..... | 1 |
| Oral Examination..... | 4 | | |

The Board shall award a supervising principal's certificate to each applicant who obtains an average of not less than 80 per cent.

**High School Teachers.** (See examination system for high school teachers.)

**Junior High School Teachers.** (See examination system for high school teachers.)

**Continuation Teachers of Elementary Business Practice.**

I. Examination entrance requirements:
   1.* Present proof of graduation from an approved two-year teacher training course, two years of approved college work, or at least two years of advanced training, including at least one year of approved commercial training.
   2.* Present proof of graduation from an approved high school or equivalent.
   3.* Present proof of at least two years of approved business or office experience.

II. Scope of examination: The examination will be partly written and partly oral and will embrace:
   1. Office practice.
   2. Stenography (Ben Pitman) and typewriting (touch system).
   3. Penmanship.

* Not necessary for teachers in the service of the Philadelphia schools.

4. Oral examinations with reference to training, experience, personal qualifications, etc.

The names of candidates who obtain a rating of seventy will be placed on the eligible list for a period of three years, provided, however, that no person not in the service of the Board of Public Education at the time of appointment, will be appointed to a position who has attained the age of 50 years.

**Assistants to Directors.** Examination for promotions to assistants to directors are given to those people who have had four years of high school training and additional training in the special subject for which application for examination is made.

All of these examinations are partly written and partly oral and all of them involve a certain amount of practical work.

The committee for the oral examination is composed of the director of the work in the field in which the candidate is being examined, an associate superintendent and a district superintendent.

The upper age limit for all appointments of assistant directors is fifty years. No candidate has his name placed on the eligible list who does not obtain a rating of at least seventy.

**In General.** Promotions to administrative positions are filled by examinations. Persons passing these examinations have their names placed on eligible lists, their rank upon the list being determined in part by the average attained in the examination and in part by their efficiency as observed in their present positions.

**Attitude of the Board of Education Toward Examination System.** The splendid spirit of the Board of Education toward the system of civil service that has been established is shown through the extension of the system to positions that are not required by law. Examinations have been given and eligible lists have been prepared for nurses, attendance officers, and clerical assistants and appointments have been made as from other eligible lists.

The examination system is in high favor with those charged with the responsibility of administering the city's schools. This is evidenced by the interest and care exhibited in preparing questions and in marking papers. High school principals, heads of departments, and superintendents coöperate whole-heartedly in this work. They give much of their leisure time to the system and feel that by so doing they are keeping appointments free from political influences of any kind.

The Director of Examinations is making a definite attempt to improve the examination system and to make it more effective. Intelligence tests are being used whenever possible for the purpose of correlation and as direct factors in ratings. A study is being made of the

general problem of standardized measures for examination purposes. In this work the Director of Examinations has the cordial support and the assistance of the administration officers in the school system.

**Conclusions.** The tendency of the examination system as conducted at present would seem to be to prohibit many excellent teachers from ever coming into the Philadelphia public school system. It is not reasonable to suppose that any great number of teachers will come long distances to chance passing the examinations for entrance to teaching positions in a city school system. Nor is it reasonable to suppose that the best teachers will spend their time and money to take an examination that may or may not result in the offer of a position, even if the candidate is fortunate in passing.

This is particularly true of applicants for grade school positions. The persons passing the examinations for grade school teachers have their names placed on the eligible list with the graduates of the City Normal School, whose grades average much higher than the ratings given applicants from outside the city school system. This results in a high percentage of City Normal graduates at the top of the eligible lists and a high percentage of applicants who passed the examination further down on the list. The new assignments are made largely at the beginning of the term. The candidates who are not at the top of the list will probably not receive offers of positions until the term has opened. This means that in order to protect themselves they must secure positions outside of the city. In order to accept the assignment in Philadelphia they must be released from their contracts with the school boards employing them. School boards are reluctant to release teachers just after they have begun work; hence many applicants who pass the examinations find placement difficult.

Administrative promotions in the city school system are from within. The examiners, therefore, are a group of people whose ideas and ideals have been developed in harmony with Philadelphia's educational program. In consequence of this all evaluations of candidates are made in the light of the training, the experience, and the ideals of the examiners. This can but result in a narrowed vision and a loss of perspective on the part of a teacher and administrator alike. However much those responsible for the administration of the schools might try to be fair in their attitude, it would hardly be possible for them to arrive at judgments except in terms of their experience and training.

Lastly, it would seem that the examinations will never attract; they will always repel. If the responsibility for the employment of teachers is placed where it belongs, in the superintendent of schools in the city, it would seem to be wise to set up certain qualifications for

teachers, place all applicants who meet this standard on the eligible list, and allow the system to bring into its service applicants from good school systems all over America. While the examination system prevents undesirable teachers from getting into the system, it does little to attract desirable teachers. The radius from which teachers come in any great numbers to take the examinations is small. It should be possible for any city school system to attract teachers from good school systems anywhere. This is all but impossible under Philadelphia's present program.

## RECOMMENDATIONS

1. Under a recent act of the Legislature, it is obligatory that every teacher in Philadelphia hold a valid State certificate. It is recommended, therefore, that in all cases where applicants present certificates which represent the completion of a standard normal school course or college graduation, that such certificates be accepted for use in Philadelphia without a written review of the applicant's credentials.

2. Eligible lists should be compiled from all applicants who present the proper certification and the necessary experience, but appointment should be made contingent upon the applicant passing a satisfactory oral examination.

3. The oral examination should be made largely a personality and method and management examination.

4. In making administrative appointments, consideration should be given to qualified persons from any source who may be available for the position.

5. Definite steps should be taken to insure a constant flow of new teachers and administrators from the outside.

# CHAPTER III

## EDUCATIONAL RECORD AND PROFESSIONAL EXPERIENCE OF TEACHERS

No survey of a school system would be complete without a study of the qualifications, training, and experience of the teaching staff.

The necessary information for this study was secured from a questionnaire which was filled out by a total of 5780 members of the teaching force, distributed as indicated in Table 1.

TABLE 1.—SHOWING THE DISTRIBUTION OF QUESTIONNAIRES BY TYPES OF POSITIONS*

| Type of Position. | Questionnaires. |
|---|---|
| Kindergarten | 249 |
| Elementary | 3,488 |
| Junior High School | 49 |
| Senior High School | 846 |
| Administration | 279 |
| †Other | 869 |
| Total | 5,780 |

* Returns approximately 100 per cent.

† Includes Concentration, Continuation, Cookery, Departmental, Domestic Science and Art, Industrial Arts, Sewing, Special Classes, Vocational, Evening School, Physical Education.

**Sex.** As in other American school systems, the number of women in the teaching force very largely exceeds the number of men. Table 2 shows the percentage of men and women teachers distributed by types of positions. In this table it will be seen that 15 per cent of the teaching force are men and 85 per cent women. No men are found in the kindergarten and but 4 per cent in the elementary grades. Of the junior high school teachers, 29 per cent are men and 71 per cent women. In the four-year senior high schools, the percentage is practically the same for men and for women. This fact is explained largely by the practice in Philadelphia of segregating the sexes in the senior high school, employing men teachers exclusively in the high schools for boys; and in the high schools for girls, exclusively women. In the administrative positions, including principalships for both high and elementary schools, as well as supervisors, directors and members of the superintendent's staff, 48 per cent are men and 52 per cent women.

While the figures in Table 2 appear to show an almost equal distribution of men and women in the administrative positions, Table 3, which shows the percentages of men and women teachers distributed by types of administrative positions, indicates that no women are to be found above the grade of director. It would appear that the opportunity

for advancement into the higher administrative positions presented to women in Philadelphia, notwithstanding the very large numbers of women in the school system, is much less than the same opportunity presented to the men.

TABLE 2.—SHOWING THE PERCENTAGES OF MEN AND WOMEN TEACHERS DISTRIBUTED BY TYPE OF POSITION

| Type of Position | Men | Women | Total | Percentages | |
|---|---|---|---|---|---|
| | | | | Men | Women |
| Kindergarten | ... | 242 | 242 | .. | 100 |
| Elementary | 140 | 3,348 | 3,488 | 4 | 96 |
| Junior High School | 14 | 35 | 49 | 29 | 71 |
| Four-year High School | 422 | 424 | 846 | 49 | 51 |
| Administration | 135 | 144 | 279 | 48 | 52 |
| *Other | 139 | 730 | 869 | 16 | 84 |
| Total | 850 | 4,923 | 5,773 | 15 | 85 |

*Concentration, Continuation, Cooking, Departmental, Domestic Science and Art, Industrial Arts, Sewing, Special Classes, Vocational, Evening School, Physical Education.

TABLE 3.—SHOWING THE PERCENTAGES OF MEN AND WOMEN TEACHERS DISTRIBUTED BY TYPE OF ADMINISTRATIVE POSITION

| Type of Position | Men | Women | Total | Percentages | |
|---|---|---|---|---|---|
| | | | | Men | Women |
| Principals | 13 | 15 | 28 | 46 | 54 |
| Supervising Principals | 86 | 91 | 177 | 49 | 51 |
| Directors and Supervisors | 24 | 38 | 62 | 39 | 61 |
| Superintendents | 12 | ... | 12 | 100 | .. |
| Total | 135 | 144 | 279 | 48 | 52 |

**Age.** Turning from the element of sex to that of age, the material gathered presents many interesting facts. Table 4 shows a distribution of the teaching force by age of groups and presents a major mode in the age group 21 to 25 and a minor mode in the age group 41 to 45, a total of 975 teachers out of 5700 being found in the former age group and representing 17 per cent of the entire teaching force, while 726 teachers, or 13 per cent, of the teaching force are to be found in the latter age group 41 to 45.

The increase in the total number of teachers to be found in the age group 41 to 45 is due chiefly to the increase in special teachers of continuation, home economics, industrial, vocational, evening, and other classes, and probably indicates a return to the teaching service, or an initial entry into such service, of persons who for some years have been in other occupations, and, due perhaps to the economic conditions, have reëntered or entered the teaching profession in middle life. Such persons would in many instances lack the qualifications for regular positions and would be forced into the special fields of teaching for which less rigid requirements are made.

The distribution of the kindergarten teachers and the elementary school teachers shows again the largest number in the age group 21 to 25.

In the high schools, however, the mode is found between 36 and 40. This fact is doubtless explained in part at least by the longer period of preparation required for teaching in the secondary schools and is partly explained by the larger percentage of men to be found teaching in the high schools and the tendency for men to persist in the teaching profession. Two other factors which also contribute to this situation are the larger measure of outside experience to be found among the high school teachers and the fact, in a number of instances, that the high school teachers have been promoted from the elementary grades, after a measure of experience there.

Turning to the administrative group we find the mode to be in the period from 41 to 45 years, which would appear to represent a reasonable basis of experience before entering this field of service. It is significant to note that out of 268 administrative officers, 77 are under 40 years of age, representing 29 per cent of the total administrative force of the city.

TABLE 4.—SHOWING THE AGES OF TEACHERS DISTRIBUTED BY TYPE OF POSITION

| Type of Position | Less than 20 | 21–25 | 26–30 | 31–35 | 36–40 | 41–45 | 46–50 | 51–55 | 56–60 | 61–65 | 66–70 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kindergarten | 1 | 63 | 47 | 25 | 14 | 27 | 34 | 13 | 14 | 9 | 2 | 249 |
| Elementary | 183 | 742 | 616 | 420 | 378 | 327 | 306 | 181 | 148 | 104 | 19 | 3,424 |
| Junior High School | 1 | 4 | 4 | 11 | 7 | 11 | 7 | 4 | ... | ... | .. | 49 |
| Four-year High School | 14 | 58 | 119 | 150 | 171 | 132 | 86 | 50 | 30 | 20 | 7 | 837 |
| Administration | ... | 7 | 16 | 22 | 32 | 56 | 38 | 36 | 24 | 30 | 7 | 268 |
| *Other | 3 | 101 | 142 | 132 | 82 | 173 | 99 | 63 | 50 | 25 | 3 | 873 |
| Total | 202 | 975 | 944 | 760 | 684 | 726 | 570 | 347 | 266 | 188 | 38 | 5,700 |
| Percentage | 3 | 17 | 17 | 13 | 12 | 13 | 10 | 7 | 4 | 3 | 1 | 100 |

* Concentration, Continuation, Cooking, Departmental, Domestic Science and Art, Industrial Arts, Sewing, Special Classes, Vocational, Evening School, Physical Education.

The facts presented in Table 4 concerning the ages of the teaching group as a whole are also presented graphically in Diagram 1.

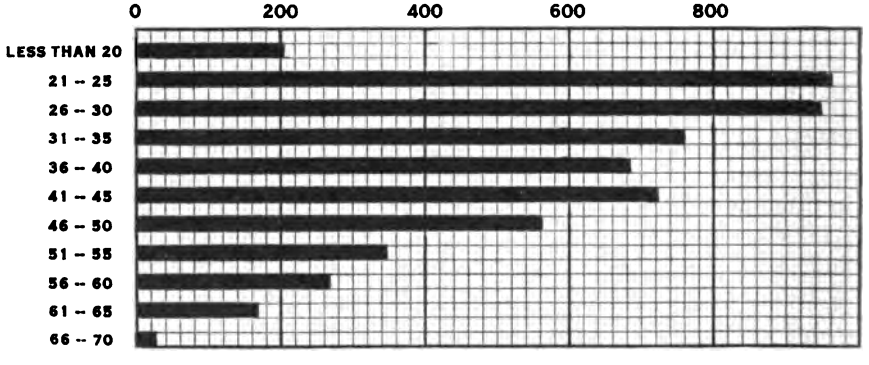



DIAGRAM 1.—SHOWING THE TEACHING FORCE DISTRIBUTED BY FIVE-YEAR AGE GROUPS

In Diagram 2 is presented a distribution of the age groups of the elementary school teachers by means of a curve. The significance of this curve lies in the fact which it discloses relative to the extent to which teachers persist in the teaching profession in a large city.

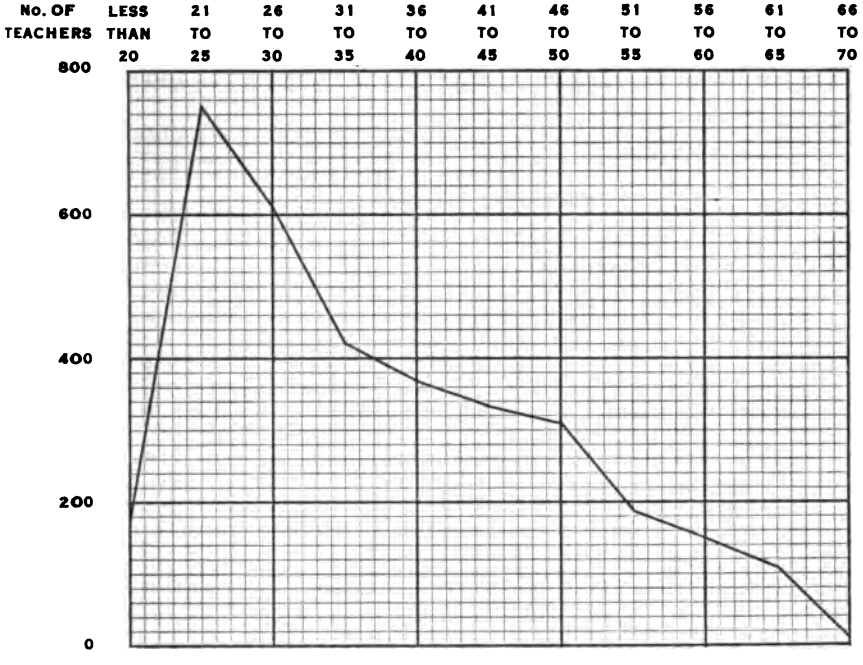



DIAGRAM 2.—SHOWING THE DISTRIBUTION OF ELEMENTARY TEACHERS BY FIVE-YEAR AGE GROUPS

The abrupt drop in the curve from the age group 21 to 25 to the age group 31 to 35 is an indication of the extent to which young teachers trained for the teaching profession leave this profession after a few years of service, and the entire curve indicates the extent to which the teaching in the elementary schools must be placed in the hands of relatively immature and inexperienced teachers. This is perhaps a fact not so much to be deplored as to be recognized and met, involving problems of supervision and teacher training in service which should engage the careful attention of the superintendent of schools and his staff.

**Training.** In general, the training of the Philadelphia public school teacher is equal to the better standards set throughout the country, practically all of the elementary school teachers having received a four-year high school education and two subsequent years of professional training for teaching, and practically all of the high school teachers

being college graduates. An analysis of this training, however, discloses the fact that it is seriously limited in its breadth and variety.

Table 5 presents the relative proportion of the teaching force which were trained inside and outside of Philadelphia and discloses the fact that 90 per cent of Philadelphia's teachers, which in the case of the elementary and kindergarten teachers rises to 93 and 94 per cent, respectively, receive their entire professional training in Philadelphia. Practically all of this was received at the Philadelphia normal schools.

TABLE 5.—SHOWING THE PERCENTAGE OF TEACHERS WHO HAVE GRADUATED FROM THE PHILADELPHIA NORMAL SCHOOL DISTRIBUTED ACCORDING TO TYPE OF POSITION

| Type of Position | Normal | | |
|---|---|---|---|
| | Philadelphia | Outside | Philadelphia, per cent |
| Kindergarten | 221 | 14 | 94 |
| Elementary | 3,009 | 238 | 93 |
| Junior High School | 44 | 5 | 90 |
| Four-year High School | 292 | 163 | 64 |
| Administration | 198 | 24 | 89 |
| *Other | 675 | 51 | 93 |
| Total | 4,439 | 495 | 90 |

* Concentration, Continuation, Cooking, Departmental, Domestic Science and Art, Industrial Art, Sewing, Special Classes, Vocational.

It is a sound principle of school administration that the teaching force of a school system should not be recruited wholly, nor even largely, from local sources but that there should be a constant and appreciable flow from the outside into any system. Some cities have deliberately set a maximum limit upon the proportion of teachers which may enter the system from the local training school, thus insuring an infusion of "new blood" with the consequent stimulus and breadth of view which should inevitably come from these foreign sources of supply. There is a natural tendency for a local training school supported by local taxation and existing exclusively for the purpose of supplying teachers to the local school system, to conform itself so completely to the traditions and existing practices of that system as to offer relatively little stimulus to its students to become advocates for the new and better things which are always developing in any growing field of thought.

The situation in this regard is far less acute in the case of four-year senior high schools, where but 64 per cent are Philadelphia-trained. There are, however, a number of colleges in the neighborhood of Philadelphia attended by Philadelphia boys and girls which, though technically giving their students training outside of the city itself, in reality provide no new experience and no new point of view. These institutions

send a considerable number of their graduates into the Philadelphia high schools as teachers.

A commendable number of Philadelphia's kindergarten and elementary teachers have continued their education and obtained the baccalaureate degree, 11 per cent of the kindergarten teachers and 13 per cent of the elementary teachers having taken this advanced work. Of the entire teaching force, 1577, or 28 per cent, have completed a full college course, and 602, or 11 per cent, have done work of graduate grade.

Table 6 shows the number and percentage of the Philadelphia teachers distributed by type of position who have completed their college work and who have gone on with their further education beyond that point.

TABLE 6.—SHOWING PERCENTAGES OF TEACHERS WHO HAVE COMPLETED COURSES FOR THE BACCALAUREATE AND GRADUATE DEGREES DISTRIBUTED ACCORDING TO TYPE OF POSITION

| Type of Position | Whole Number of Teachers | College Training | | Graduate Training | |
|---|---|---|---|---|---|
| | | College Graduates | Per Cent | Graduate Students | Per Cent |
| Kindergarten | 249 | 28 | 11 | 10 | 4 |
| Elementary | 3,488 | 462 | 13 | 112 | 3 |
| Junior High School | 49 | 25 | 51 | 9 | 18 |
| Four-year High School | 846 | 686 | 81 | 356 | 46 |
| Administration | 279 | 148 | 53 | 60 | 22 |
| *Other | 869 | 228 | 26 | 55 | 6 |
| Total | 5,780 | 1,577 | 28 | 602 | 11 |

TABLE 7.—SHOWING NUMBER OF TEACHERS WHO HAVE TAKEN MISCELLANEOUS SPECIAL COURSES DISTRIBUTED ACCORDING TO TYPE OF POSITION

| Type of Position | Miscellaneous Special Courses |
|---|---|
| Kindergarten | 117 |
| Elementary | 788 |
| Junior High School | 36 |
| Four-year High School | 578 |
| Administration | 150 |
| *Other | 499 |
| Total | 2,168 |

Table 7 shows the number of teachers who have pursued various miscellaneous courses but who have not as yet secured the baccalaureate degree, 2168, or 38 per cent, having pursued such courses.

Table 8 shows a detailed distribution of these miscellaneous courses by subject and subject field. It is interesting to note here that the

* Concentration, Continuation, Cooking, Departmental, Domestic Science and Art, Industrial Art, Sewing, Special Classes, Vocational.

largest number are taking courses in education and the next largest number taking courses in English, with science, social studies, drawing, music, and mathematics next in the order named.

TABLE 8.—SHOWING THE NUMBER OF TEACHERS TAKING SPECIAL COURSES WITH TYPE OF COURSE ATTENDED

| Character of Course | Number Taken | Percentage | Character of Course | Number Taken | Percentage |
|---|---|---|---|---|---|
| Education | 367 | 17 | Music | 146 | 7 |
| English | 200 | 9 | Drawing | 154 | 7 |
| Mathematics | 112 | 5 | Handwork | 64 | 3 |
| Social Studies | 173 | 8 | Geography | 4 | 0.002 |
| Science | 182 | 8 | Physical Training | 42 | 2 |
| Language | 128 | 6 | Electricity | 1 | 0.0005 |
| Agriculture | 27 | 1 | Industrial Arts | 54 | 3 |
| Shop | 35 | 1 | History | 37 | 2 |
| Commercial | 64 | 3 | Miscellaneous | 193 | 9 |
| Home Economics | 81 | 4 | | | |
| Kindergarten | 104 | 5 | Total | 2,168 | 100 |

There is here evidence of a commendable desire on the part of a large number of Philadelphia's teachers to advance their own professional standing and the value of the service which they are rendering to the children of the city. There is, however, little evidence of an organized and directed plan in the work which these teachers have done, the determining factor having been in most instances the interests and inclinations of the teacher concerned rather than any carefully thought out course with a definite objective at its end. Too often teachers find themselves with a miscellaneous assortment of credits that may not be grouped to satisfy the requirements of any specific certificate or degree and are in consequence deprived of the paper credentials to which they might have been entitled under a wise leadership. This is furthermore a significant indication of the possibilities that lie in a well-organized plan of teacher training in service which should form a definite part of the policy of the superintendent's office.

TABLE 9.—SHOWING THE YEARS OF SERVICE IN PHILADELPHIA OF TEACHERS DISTRIBUTED BY TYPE OF POSITION

| Type of Position | Years of Service in Philadelphia | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1–5 | 6–10 | 11–15 | 16–20 | 21–25 | 26–30 | 31–35 | 36–40 | 41–45 | 46–50 | 51–55 |
| Kindergarten | 102 | 39 | 30 | 17 | 28 | 23 | 6 | 4 | ... | ... | .. |
| Elementary | 1,120 | 687 | 418 | 381 | 287 | 203 | 139 | 108 | 96 | 30 | 8 |
| Junior High School | 2 | 6 | 13 | 8 | 6 | 9 | 4 | ... | 1 | .. | .. |
| Four-year High School | 186 | 214 | 212 | 95 | 64 | 40 | 29 | 10 | 1 | .. | .. |
| Administration | 14 | 23 | 30 | 50 | 46 | 34 | 26 | 28 | 15 | 11 | 1 |
| *Other | 168 | 167 | 125 | 113 | 79 | 65 | 46 | 32 | 14 | 3 | 1 |
| Total | 1,592 | 1,136 | 828 | 664 | 510 | 374 | 250 | 182 | 127 | 44 | 10 |
| Percentage | 28 | 20 | 14 | 12 | 9 | 7 | 4 | 3 | 2 | 0.8 | 0.2 |

* Concentration, Continuation, Cooking-Sewing, Departmental, Domestic Science and Art, Industrial Arts, Physical Training, Special Classes, Vocational.

**Service.** Three factors present themselves for consideration in reviewing the service rendered by Philadelphia's teachers:

1. Length of this service in years.
2. Distribution of this service by place.
3. Distribution of this service by type of position.

Table 9 shows the distribution of teachers by types of position through five-year service periods from 1 to 5, to 51 to 55. A consideration of this table shows the largest number of teachers to have served five years or less, and a steadily diminishing number for each of the higher service periods.

Diagram 3 shows this situation in the form of a curve which indicates quite clearly that the high point is in the one- to five-year service group. This fact reinforces the point brought out in connection with the study of teachers' ages and suggests again the importance of developing a system of supervision and teacher training in service that will somewhat meet the limited experience which the majority of Philadelphia's teachers have.

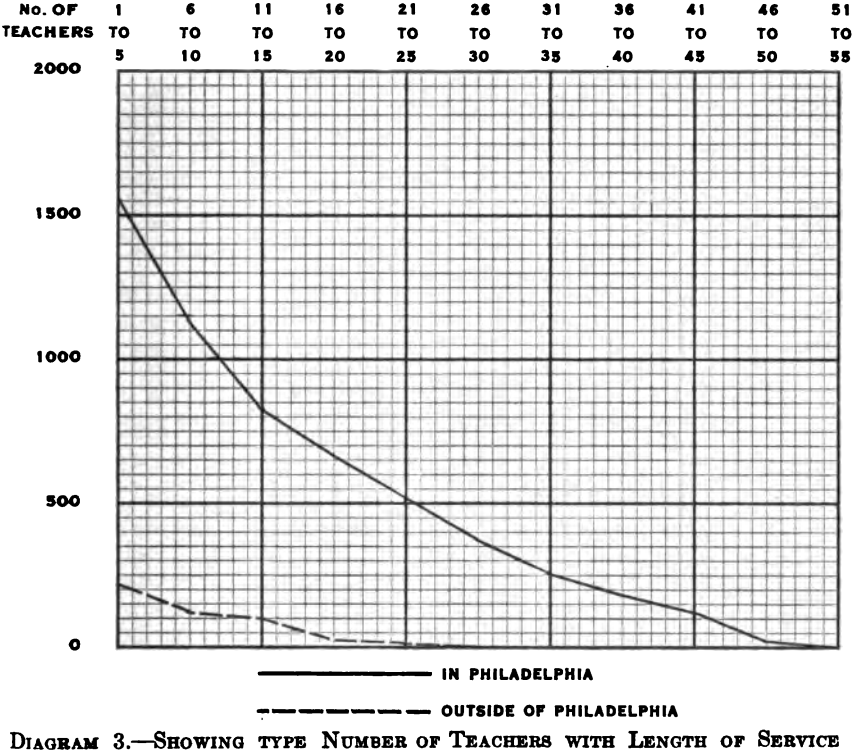



DIAGRAM 3.—SHOWING TYPE NUMBER OF TEACHERS WITH LENGTH OF SERVICE INSIDE AND OUTSIDE OF PHILADELPHIA

TABLE 10.—SHOWING THE YEARS OF SERVICE OUTSIDE OF PHILADELPHIA OF TEACHERS DISTRIBUTED BY TYPE OF POSITION

| Type of Position | Years of Service Outside of Philadelphia | | | | | |
|---|---|---|---|---|---|---|
| | 1–5 | 6–10 | 11–15 | 16–20 | 21–25 | 26–30 |
| Kindergarten | 10 | 2 | 15 | 2 | 1 | .. |
| Elementary | 29 | 23 | 13 | 14 | 5 | 2 |
| Junior High School | 3 | .. | .. | .. | .. | .. |
| Four-year High School | 167 | 77 | 51 | 10 | 2 | .. |
| Administration | 12 | 2 | 8 | 2 | 1 | 3 |
| *Other | 16 | 18 | 13 | 6 | .. | 2 |
| Total | 237 | 122 | 100 | 34 | 9 | 7 |
| Percentage | 46 | 24 | 20 | 7 | 1.7 | 1.3 |

TABLE 11.—SHOWING TEACHING YEARS DISTRIBUTED BY TYPE OF POSITION

| Years of Service | Kindergarten | Elementary | Junior H. S. | Four-year H. S. | Administration | *Other | Total |
|---|---|---|---|---|---|---|---|
| PHILADELPHIA | | | | | | | |
| 1– 5 | 255 | 2,800 | 5 | 465 | 35 | 420 | 3,980 |
| 6–10 | 292.5 | 5,152.5 | 45 | 1,605 | 172.5 | 1,252.5 | 8,520 |
| 11–15 | 375 | 5,225 | 162.5 | 2,650 | 375 | 1,562.5 | 10,350 |
| 16–20 | 297.5 | 6,667.5 | 140 | 1,662.5 | 875 | 1,977.5 | 11,620 |
| 21–25 | 630 | 6,457.5 | 135 | 1,440 | 1,035 | 1,777.5 | 11,475 |
| 26–30 | 632.5 | 5,582.5 | 247.5 | 1,100 | 935 | 1,787.5 | 10,285 |
| 31–35 | 195 | 4,517.5 | 130 | 942.5 | 845 | 1,495 | 8,125 |
| 36–40 | 150 | 4,050 | ..... | 375 | 1,050 | 1,200 | 6,825 |
| 41–45 | ..... | 4,080 | 42.5 | 42.5 | 637.5 | 595 | 5,397.5 |
| 46–50 | ..... | 1,425 | ..... | ..... | 522.5 | 142.5 | 2,090 |
| 51–55 | ..... | 420 | ..... | ..... | 52.5 | 52.5 | 525 |
| Total | 2,827.5 | 46,377.5 | 907.5 | 10,282.5 | 6,535 | 12,262.5 | 79,192.5 |
| Percentages | 91 | 98 | 99 | 85 | 96 | 96 | 95 |
| OUTSIDE OF PHILADELPHIA | | | | | | | |
| 1– 5 | 25 | 72.5 | 7.5 | 417.5 | 30 | 40 | 592.5 |
| 6–10 | 15 | 172.5 | ..... | 577.5 | 15 | 135 | 915 |
| 11–15 | 187.5 | 162.5 | ..... | 637.5 | 100 | 162.5 | 1,250 |
| 16–20 | 35 | 245 | ..... | 175 | 35 | 105 | 595 |
| 21–25 | 22.5 | 112.5 | ..... | 45 | 22.5 | ..... | 202.5 |
| 26–30 | ..... | 55 | ..... | ..... | 82.5 | 55 | 192.5 |
| Total | 285 | 820 | 7.5 | 1,852.5 | 285 | 497.5 | 3,747.5 |
| Percentages | 9 | 2 | 1 | 15 | 4 | 4 | 5 |
| Grand total | 3,112.5 | 47,197.5 | 915 | 12,135 | 6,820 | 12,760 | 82,940 |

Table 10 shows the years of experience outside of the city of Philadelphia recorded by Philadelphia's teachers. It is significant that but 509 teachers out of 5780, or less than 10 per cent, report any outside experience; and that of these, 237 report an outside experience of five years or less. There is here another indication of the small measure of

*Concentration, Continuation Cooking-Sewing, Departmental, Domestic Science and Art, Industrial Arts, Physical Training, Special Classes, Vocational.

outside experience which has contributed to the development of the Philadelphia school system.

This appears in a more striking form when the years of service are multiplied by the number of teachers and translated into teaching years. In the elementary field of the Philadelphia system, out of a total of 47,197 years, 46,377, or 98 per cent, have been in Philadelphia and but 820, or 2 per cent, have been outside of Philadelphia. The figures for the high schools, although less extreme, show again a very large percentage in favor of service within the city. Out of a total of 13,050 teaching years, 11,190 teaching years, or 86 per cent, were spent in Philadelphia and 1860 teaching years, or 14 per cent, outside of Philadelphia.

In the field of administration, representing the supervising principals, directors, and supervisors of special subjects, and the superintendent's office including the assistant district superintendents, out of a total of 6820 years of service, 6535, or 96 per cent, were within the Philadelphia system and 285, or 4 per cent, elsewhere. When we realize that this represents the leadership of the Philadelphia school system, it is perhaps safe to say that Philadelphia has declined to take advantage of educators available from other school systems.

Table 11 shows the distribution of the teaching service of Philadelphia's teachers by teaching years, distributed by types of position for the entire teaching force. Ninety-five per cent of these teaching years have been spent in the Philadelphia system. The charge of inbreeding has frequently been brought against the Philadelphia system and the facts here presented would seem to sustain this charge.

**Salary.** The salary study which was made in connection with this report has been omitted inasmuch as a new salary schedule has been established and put into effect since the study was made and an insufficient time has elapsed to provide an adequate basis for a discussion of the new schedule.

**Conclusion.** Two conclusions seem to resolve themselves from this study:

1. Through a practice pursued for many years of providing the entire supply of new teachers annually from the ranks of the graduates of the local normal schools and through a tradition which dictates that preference shall always be given to members of the teaching force of the local school system when vacancies occur or new positions are created, a system of inbreeding has developed which has practically isolated the Philadelphia school system from contact with other systems of public education.*

* See Addenda.

2. No organized attempt appears to have been made to provide the further training for teachers in service which is necessary for their growth and development and, although a considerable number of the teaching force has commendably sought such further education and training, they have done so without substantial encouragement or assistance from the school authorities.*

### RECOMMENDATIONS

1. Definite steps should be taken to provide a flow of trained teachers into Philadelphia from outside and sufficient elasticity should be introduced into the machinery for the filling of vacancies and new positions that there may be attracted to these positions the most competent people obtainable regardless of whether or not they are already members of the Philadelphia teaching force.

2. The school authorities of Philadelphia, and particularly the superintendent's office, should address themselves at once to the problem of organizing and providing a plan of teacher training in service which shall be under the control of the school authorities and which shall be designed specifically to further the several objectives of the school system and to see that adequate incentives and opportunities are presented to the teaching force to undertake this work under favorable and attractive conditions.

## ADDENDA

1. Although undoubtedly the administrative and supervisory staff in Philadelphia have some academic knowledge of other school systems through reading and occasional visits, it is the contention of the Survey that this by no means provided the freshness of viewpoint and diversity of experience which is generally considered necessary to the health of every growing organization. It is not contended that Philadelphia lacks competent people within her own school system, but simply that the practically unbroken practice of supplying her administrative positions from within has deprived her of the services of leaders in other school systems who, without necessarily possessing any greater native competence, would have brought to the system a new basis of experience and a new angle of vision which would have been beneficial.

2. The rules of the Board of Education provide for examinations for positions in the Philadelphia school system for persons trained outside of Philadelphia. It is contended by the Philadelphia authorities that this device satisfactorily meets the charge of inbreeding brought by an analysis of the experience records of Philadelphia's teaching force.

* See Addenda.

There is, however, good reason to believe that this device has, on the contrary, acted as a check upon the natural tendency of good people to seek opportunity for service in a system as large as Philadelphia. To be sure, these examinations have been held and persons have attended them but there is no evidence that these persons were the best available candidates. Furthermore, the examinations were confined to teaching positions and did not include the positions of leadership in the system.

3. For some time past the Philadelphia authorities have been working at an effective system for the improvement of teachers in service which has received favorable comment from many places outside of Philadelphia. This plan, although admirable as far as it goes, is by no means sufficient. We understand it to consist chiefly of demonstration lessons carefully staged with conferences in connection therewith. There is also a definite attempt made to interpret the courses of study by means of tests, suggestions, and type lessons sent out from the central office from time to time. What is needed in addition to this is a definite plan organized and controlled by the Department of Superintendence for the further training of teachers in service in standard and recognized courses in education. Although we do not belittle in any sense the attempt to improve the technique and craftsmanship of the teachers, there is an equal need for enlarging the teachers' vision of educational problems and for bringing the teacher into contact with the progressive thought of the country as it develops from year to year. This can best be done through organized courses in connection with some established institutions whose officers are alive to these problems and whose function is to study these problems and present them to their students.

# PART III

## CHAPTER I

## INDUSTRIAL EDUCATION

### The Purpose, Scope, and Methods of the Survey

**Purpose.** The study of trade and industrial education in Philadelphia has been undertaken by the State Department of Public Instruction in order that specific recommendations, resting on a factual basis, may be made relative to various phases of industrial arts education, and trade and industrial education for the city of Philadelphia. In the work of inspection, in the measurement of educational results, in the analysis of situations, and in the recommendations looking toward the promotion and perpetuation of desirable forms of industrial arts and of trade and industrial education, certain factors have been kept in mind. Among these are the following:

An effort has been made to evaluate findings impartially, justly, and in the light of economic and social considerations.

Conclusions given in the report, except where otherwise indicated, are based on conditions normally obtaining in industry rather than upon findings representing short transient periods of unusually rapid trade expansion or of financial depression and corresponding industrial inactivity such as occasionally arise in most vocational pursuits.

**Scope.** The field work done in connection with the survey of industrial arts education, and of trade and industrial education resolves itself into two major phases. The first of these is a determination of what forms of industrial arts education, and of trade and industrial education, are needed in Philadelphia. This problem is dealt with in detail in that part of this report beginning on page 183. The second phase of the problem consists in the measurement and analysis of facts showing how the schools of Philadelphia are meeting these needs. The inquiry includes semi-public as well as public schools of secondary grade. The detailed findings are reported in that part of this report beginning on page 187.

**Methods.—Available Statistical Data.** The policy has been followed in this survey of using all available data bearing on the problem, in order that duplication of effort and needless expense might be avoided. Economic, trade, industrial, social, and educational facts were collated from a variety of reliable sources.

**School Data.** Most of the information bearing on the schools was secured through personal observation and interviews. Members of the

survey staff visited the schools, where they gathered much first-hand data bearing on the problem. Other information was secured through question blanks which were thoroughly explained to teachers or pupils giving the desired information. Other information was secured directly by the field workers from persons holding supervisory and administrative school positions.

**Conferences With Employers and Employees.** A number of conferences were held with representative employers and employees. These meetings were held in the rooms of the Philadelphia Chamber of Commerce. It is felt that these conferences were a direct means of obtaining the active coöperation of numerous interested agencies toward a comprehensive program of trade and industrial education such as is essential to the development of a great industrial city like Philadelphia. Those who attended the meetings expressed themselves as strongly in favor of them.

## ECONOMIC FACTS CONCERNING TRADES AND INDUSTRIES IN PHILADELPHIA

Philadelphia is essentially and preëminently an industrial city. In 1914 the Philadelphia district was third in the United States in importance of manufactured products. Table 1 shows that the value of manufactured products increased over 53 per cent in four years, and that the annual value of products manufactured in 1919 amounted to almost two billion dollars.

There are more mills and factories in the Philadelphia district employing 500 people and over than in any other city in the world. In 1919 Philadelphia had 5454 manufacturing establishments. They make 80 per cent of the kinds of products listed in the United States Census classification. The combined value of the manufactured products of seventeen states did not equal those of Philadelphia.

In 1917 Philadelphia exported six billion dollars worth of goods, of which 78 per cent represents manufactured products. A few salient facts relative to the leading industries are shown in Table 2.

Philadelphia leads in the production of textiles, carpets and rugs, hosiery and knit goods, locomotives, street railway cars, iron and steel ship building, felt hats, saws, upholstery goods, and oil cloths.

It is estimated that nearly five million dollars a day was spent during the war period in ship building industries in and near Philadelphia. These yards are among the best equipped in the world.

Trade and industrial education in the city of Philadelphia can be made to influence human effort for which $341,257,900 was paid in 1919, and which represents business investments of $1,005,658,500.

TABLE 1.—VALUE OF PRODUCTION IN PHILADELPHIA

| Year | Amount | Years | Increase, per cent |
|---|---|---|---|
| 1916 | $1,283,596,000 | 1916–1917 | 26 |
| 1917 | 1,559,148,200 | 1917–1918 | 22.8 |
| 1918 | 1,913,852,400 | 1918–1919 | 19.8 |
| 1919 | 1,951,998,000 | 1916–1919 | 52.1 |

TABLE 2.—LEADING INDUSTRIES, 1918–1919*

| Industry | Average Number of Employes | Total Wages Paid | Total Value of Production |
|---|---|---|---|
| Building and contracting | 17,548 | $20,551,400 | $70,344,700 |
| Chemical and allied products | 17,110 | 21,381,800 | 210,240,900 |
| Clothing manufacture | 41,374 | 37,237,500 | 181,629,000 |
| Food and kindred products | 17,862 | 20,832,100 | 283,531,200 |
| Leather and rubber goods | 12,597 | 16,111,900 | 130,585,300 |
| Lumber and its re-manufacture | 7,750 | 8,640,100 | 41,747,700 |
| Paper and printing | 23,410 | 26,276,400 | 146,510,000 |
| Textiles | 44,294 | 43,530,500 | 292,107,800 |
| Metal and metal products | 66,991 | 88,676,800 | 336,780,200 |

TABLE 3.—NUMBER OF INDUSTRIAL ESTABLISHMENTS*

| Industry | Number | Industry | Number |
|---|---|---|---|
| 1. Printing and publishing | 392 | 14. Furniture | 70 |
| 2. Bread and other bakery products | 336 | 15. Laundry work | 67 |
| 3. Roofing and sheet metal work | 219 | 16. Confectionery | 66 |
| 4. Building construction | 195 | 17. Boxes—fancy and paper | 61 |
| 5. Machinery and parts | 135 | 18. Painting and decorating | 61 |
| 6. Clothing—women's and children's | 127 | 19. Machine repair shops | 58 |
| 7. Hosiery and knit goods | 124 | 20. Electrical construction | 57 |
| 8. Plumbing and heating | 119 | 21. Cotton goods | 56 |
| 9. Garages making repairs | 114 | 22. Brick, cement and stone work | 55 |
| 10. Clothing—men's | 110 | 23. Plants and flowers | 52 |
| 11. Cigars | 97 | 24. Others of paper printing class | 50 |
| 12. Yarns | 81 | 25. Woolen, worsted and felt goods | 50 |
| 13. Dyeing and finishing textiles | 78 | | |

TABLE 4.—VALUE OF PRODUCTS, 1919*

| Industry | Products | Industry | Products |
|---|---|---|---|
| 1. Sugar refining | $128,098,100 | 14. Ship and boat building | $38,913,300 |
| 2. Printing and publishing | 98,117,700 | 15. Clothing—men's | 35,012,600 |
| 3. Leather—tanned, curried and finished | 85,889,900 | 16. Bread and other bakery products | 33,772,400 |
| 4. Oils—not specified | 76,716,600 | 17. Carpets and rugs | 30,890,300 |
| 5. Yarns | 76,210,000 | 18. Fire escapes | 30,093,500 |
| 6. Hosiery and knit goods | 61,487,500 | 19. Building construction | 28,955,700 |
| 7. Woolen, worsted and felt goods | 51,060,300 | 20. Clothing—women's and children's | 27,957,500 |
| 8. Instruments—professional and scientific | 41,912,700 | 21. Gas companies | 26,307,000 |
| 9. Engines—railroad | 41,442,300 | 22. Confectionery | 23,886,400 |
| 10. Slaughtering and meat packing | 40,598,100 | 23. Supplies—electrical | 20,922,400 |
| 11. Automobiles and parts | 40,214,000 | 24. Paints and varnishes | 19,716,600 |
| 12. Chemicals | 39,359,100 | 25. Planing mill products | 18,806,800 |
| 13. Cotton goods | 39,352,900 | | |

* Adapted from *Report of Productive Industries*, Department of Internal Affairs.

TABLE 5.—WAGES PAID, 1919*

| Industry | Wages | Industry | Wages |
|---|---|---|---|
| 1. Ship and boat building | $17,177,700 | 14. Cotton goods | $6,397,600 |
| 2. Printing and publishing | 16,163,600 | 15. Woolen, worsted and felt goods | 6,109,700 |
| 3. Engines—railroad | 12,381,900 | 16. Carpets and rugs | 5,137,000 |
| 4. Hosiery and knit goods | 11,771,900 | 17. Supplies—electrical | 5,032,100 |
| 5. Repair shops | 11,474,500 | 18. Bread and other bakery products | 4,871,900 |
| 6. Machinery and parts | 11,414,000 | 19. Clothing—women's and children's | 4,728,800 |
| 7. Automobiles and parts | 10,513,800 | 20. Sugar refining | 4,697,500 |
| 8. Oils—kerosenes | 10,348,200 | 21. Cigars | 4,323,000 |
| 9. Yarns | 10,024,400 | 22. Pulleys, hangers and bearings | 4,167,000 |
| 10. Leather—tanned, curried and finished | 7,853,900 | 23. Dyeing and finishing textiles | 4,021,800 |
| 11. Firearms and ammunition | 7,572,500 | 24. Furniture | 3,578,900 |
| 12. Building construction | 6,559,200 | 25. Silk and silk goods and throwsters | 3,363,800 |
| 13. Clothing—men's | 6,418,000 | | |

* Adapted from *Report of Productive Industries*, Department of Internal Affairs

TABLE 6.—WORKERS IN THE BUILDING TRADES IN PHILADELPHIA, 1920*

| Name of Trade | Number of Workers | Name of Trade | Number of Workers |
|---|---|---|---|
| 1. Carpenters | 11,000 | 12. Hoisting engineers | 600 |
| 2. Painters | 6,000 | 13. Elevator constructors | 500 |
| 3. Plasterers | 6,000 | 14. Ornamental iron workers | 500 |
| 4. Electricians | 3,200 | 15. Lathers | 400 |
| 5. Bricklayers and masons | 3,000 | 16. Roofers, slag | 400 |
| 6. Plumbers | 3,000 | 17. Roofers, slate and tile | 350 |
| 7. Steam fitters | 1,800 | 18. Pipe coverers | 350 |
| 8. Sheet metal | 1,700 | 19. Granite cutters | 175 |
| 9. Structural iron workers | 1,700 | 20. Soft stone cutters | 175 |
| 10. Cement finishers | 1,300 | 21. Tile setters | 150 |
| 11. Dock builders | 800 | 22. Marble setters | 55 |

* Data secured by Secretary of the Master Carpenters and Builders Company of Philadelphia.

## THE NEED FOR TRADE AND INDUSTRIAL EDUCATION

The need for sane, practical vocational instruction for working people in the United States is nation-wide. The proper education of those workers is the greatest, and most urgent educational problem facing our age. During periods of peace and plenty this need is not so evident as in times of national struggle when there is closer scrutiny into the true worth of things. During the Civil War Congress passed the Acts endowing the land grant colleges to teach agriculture and the mechanic arts. During the recent World War the United States gave nation-wide testimony to the need for vocational education of secondary grade by passing the Federal Vocational Education Act otherwise known as the Smith-Hughes Act. The amount of money that is available to the city of Philadelphia through this act is not great—not nearly adequate to support trade and industrial education. The significance that the passage of the Federal Act has for the city is that it shows there is nation-wide need for vocational education, and the Act embodies provisions that have proved helpful to the country at large, and hence should be carefully considered in Philadelphia.

The facts presented in the preceding tables show that Philadelphia is one of the world's greatest industrial centers. Such a city can ill afford not to provide opportunities for her industrial workers that are commensurate with her great, diverse industrial needs. Many thousands of her workers have to "pick up" their trade because other more equitable provisions are not always made. The human and the economic waste resulting from such methods of training for production are very great. As long as they continue the city is not measuring up to its possibilities. It is not that good vocational education is not being given—the point we wish to establish is that it is not being given in sufficient amount.

Many thousands of workers are out of jobs in the city in times of financial depression. This is a fact of great social significance. While poverty is no crime it is often the cause of it. Industrial education cannot hope to do away with unemployment, but can materially reduce it by giving workers the training that will enable them to compete successfully against cheaper foreign labor. In recent years the United States has enjoyed unprecedented growth in industrial development. In the near future we shall be thrown into keener competition with foreign countries. In order to maintain her well-earned place in the industrial world Philadelphia will have to rely more and more upon increased skill and added technical knowledge that her producers shall need to possess.

The city of Philadelphia has enough workmen, but it does not have enough skilled workmen who are true masters of the work that is theirs to do. The reasons for the situation are many. Most labor groups as well as most employees' associations in the skilled trades have their own apprenticeship or educational committees who study, and make recommendations concerning vocational education in their craft or trade. Results have been satisfactory only in part because employers and employees often have not coöperated as they should in the development of educational plans that are mutually satisfactory.

The Board of Education has an opportunity to head up these efforts, and carry them out to the satisfaction of employers and employees. The Board of Education should actively stimulate and promote such coöperative effort much more than it has done in the past. Certain recommendations looking toward this end will later be made. The success or failure of vocational education in Philadelphia is largely determined outside of school walls.

**Coöperation with Industry is Imperative.** As an index to the value of vocational education to individuals the following figures taken from the report of the Pennsylvania State Employment Bureau, for the third

week of January, 1921, are illuminating. During this one week 3900 persons in Philadelphia applied for work designated as "common labor." Of this number 26 persons were placed in employment. That is, less than seven persons per thousand seeking such employment were placed during the week. On the other hand, over 55 per cent of the metal-workers, and over 58 per cent of the persons engaged in the building trades who sought employment were placed during this same week. These figures are typical of the situation in Philadelphia and elsewhere, at the present time.

The need for trade education in the printing industry is urgent. Mr. William T. Innes, Secretary of the Typothetæ of Philadelphia, who has given considerable time and thought to apprenticeship training, says: "The inferior grade of a large percentage of our younger journeymen workers, and the ageing of our well-trained men has produced a state of shop inefficiency that is all too well known to those having a practical experience of ten years and upwards."

Mr. Innes is now perfecting a plan of his which has received much favorable mention from printers. This plan is discussed more fully in another part of this report. Its probable success lies in the fact that it is based on conditions to which employees as well as employers are willing to subscribe. To use his own words: "It is just a mixture of common sense and coöperation."

In the building trades there is also a clear-cut need for better-trained workers. Mr. William Haggerty, Secretary of the Philadelphia Bricklayers' Union, states that there are 1700 union bricklayers, in the city, and that his union takes on not over 33 apprentices annually. One can figure with mathematical certainty that more apprentices are needed—especially when one considers the fact that the high wages that obtained during the war period tended to attract young men from skilled work to less skilled occupations offering greater initial wages than the skilled trades.

Representative builders testified to the fact that apprenticeship training is very much needed. The plumbers have perhaps the best and most widely attended trade classes in the city. Instruction is now given only in evening school. Representatives of the trade expressed interest in the part-time coöperative scheme that was suggested as a supplement to the evening instruction now being given.

Emphasis has been placed upon the desirability of expanding the opportunities for trade education for workers in the skilled trades. There is every reason to believe that there is valuable instruction that can be offered for the more highly specialized occupations. The so-called "semi-skilled" trades are capable of improvement. Job analysis will reveal that certain skills and knowledge are necessary in order to

do a certain thing efficiently and well. These things can be listed and can serve as a basis for trade education for the particular occupations in mind.

A form of trade extension education that is beginning to receive well-merited attention in the United States as a whole is foreman training. Certain large corporations in Philadelphia are training their own foremen. In addition, the University of Pennsylvania organized foreman classes this year in Philadelphia that give evidence of promise. In the past industrial education has been given mainly to executives on the one hand, and to the workers on the other. The connecting link, the foremen and minor executives, have been passed up. There is every indication that foremen training is worthy of careful thought. An industrial city like Philadelphia can well afford to put time and brains into so promising a phase of vocational education.

It is generally known that the textile industries of Philadelphia have been practically shut down for some months. Yet the school committee of the Philadelphia Textile Manufacturers' Association in its report of November 22, 1920, states that a trade school for textile workers is a positive necessity. They propose themselves to finance trade instruction in "beaming," "warping," and "drawing-in," and to add additional trade instruction later.

Approximately one-fifth of all persons engaged in gainful occupations in Philadelphia are women and girls. Some of them are engaged in occupations for which little if any initial training is feasible, but it is evident that vocational education is needed for many. Some of this trade education may be given in trade schools; the majority of it needs to be given within the industries themselves. Just how much of it should be undertaken by private enterprise, and how much should be under public supervision and control is a matter that needs to be worked out through the coöperative efforts of all interested agencies.

As an integral part of an effective and far-reaching scheme of vocational education, there is needed a practical system of vocational guidance. This should embrace something more than that which is usually given under the head of educational guidance. A detailed discussion of vocational guidance, placement, and follow-up work is given in another part of this report. The subject is mentioned here because there is an evident and immediate need for more vocational guidance of youth and of adults than is being given at this time by the various private and public agencies which are rendering service of this kind.

**The Relationship of Trade and Industrial Education to the Needs as Found in Leading Industries.** As regards trade and industrial

education meeting the requirements of the Smith-Hughes Act, the city of Philadelphia has relatively very little to show for itself. The instruction now being offered can be considered only a beginning of what the city through its Board of Education should offer in the way of trade and industrial education. As Philadelphians should greatly extend the opportunities of trade and industrial education to those engaged in industrial pursuits, the dominant aim should be to aid through educational service those who need this help in order that they may be better able to support their families, in order that they may become better citizens, and in order that they may be able to develop their native capacities to the fullest extent, and in harmony with American traditions and ideals.

**Types of Industrial Education.** Industrial education may, for convenience, be classified into two major groups. The first of these is "trade extension" industrial education. By trade extension education is meant those forms of industrial education that are given to persons engaged in vocational pursuits with a view toward increasing and broadening their knowledge or skill of their particular trade or occupation.

The second group comprises "trade preparatory" industrial education. The kinds of industrial education included in this grouping are designed to meet the needs of persons who desire to enter given occupations, but who are not yet engaged in such occupations.

**1. All-day Schools or Classes.** The all-day industrial schools or classes are intended for persons over fourteen years of age who have determined upon the vocation they wish to follow, and who desire instruction that will be directly helpful to them in that vocation. The instruction given is of the "trade preparatory" type since it is given to persons who have not yet entered industry.

Instruction may be given outside as well as inside of the school plant. All instruction should be under the direct control of the school. As far as possible actual working conditions as they exist in industry are duplicated. The product should be productive in nature, though not always a commercial one. That is, the product is really useful, and measuring up to trade standards, but it may or may not be sold in the open market.

All-day industrial classes may be organized as departments in high schools or as separate schools or classes.

**2. Part-time Schools or Classes.** The term "part-time" education is used for any form of instruction given in the day time to persons spending part of their time in work and devoting the other part to instruction.

There are a number of types of industrial part-time schools or classes. On the one hand the instruction given may be "trade preparatory" in type, as with young persons over fourteen years of age as well as adults who are employed in "low-skilled" occupations for which little instruction is needed, and who wish to prepare themselves for other vocations than the one in which they are engaged. On the other hand instruction may be of the "trade extension" type, in which persons take work supplementary to their daily employment. Such classes are limited to persons following the particular trade or calling for which such instruction is organized.

**Part-time Continuation Classes.** Industrial arts education, as well as industrial education needs to be offered to a number of juveniles employed in industry, who come within the scope of the compulsory continuation school law. The detailed discussion on this topic is given in the report on Continuation Schools.

**Part-time Coöperative Classes.** Part-time coöperative industrial education as usually given calls for a coöperative agreement between employers on the one hand and public school authorities on the other whereby an "alternating" plan of instruction is agreed upon. Two learners are used for any given position in industry. While one of them is attending school the other one is "holding down the job." In York, Pennsylvania, where this coöperative system has been successfully used for 10 years, there are at present 27 industrial concerns that are coöperating with the public schools in this form of industrial education. In York the boys alternate every two weeks between laboratories or classrooms, and the shops.

Instead of alternate two-week periods the plan may call for alternate weeks or even alternate half-days.

While various kinds of agreements between employers and employees may be entered into, it is a common practice for employers to pay part-time coöperative employees at the prevailing apprenticeship rate for the actual time spent by them on productive work in industry.

The plan is a very commendable one from an educational standpoint. It is likely to bring to industry a better-educated worker than can otherwise be secured. Theory and practice are learned hand-in-hand—the learner "keeps his feet on the ground," as it were, and he is enabled partially or wholly to support himself while serving his apprenticeship or while learning his vocation.

A number of concerns in various states of the Union have found the part-time coöperative plan to be one that is mutually beneficial to employees and employers, and have found that it is more practical than is often at first supposed.

**Part-time Slack-season Classes.** Certain trades are seasonal—that is, they have more or less distinct rush periods and slack periods of production, as, for example, bricklaying, paper-hanging, and carpentry. Industrial education may well be required by employers or by trade groups; requiring those to attend classes given during slack-season periods who can profit by such instruction.

Slack-season instruction should commend itself to progressive workmen and employers. Both should coöperate in promoting such instruction as a part of public school service. A large number of persons already engaged in certain vocations can be helped in this way.

**3. Evening Schools or Classes.** Industrial education in evening schools may be of the "trade preparatory" type. The effectiveness of such instruction for purposes of vocational education is sometimes a question owing to the fact that the learners often have no background of trade experience and because the time in evening classes is too limited to provide such a background.

The most effective evening school instruction in industrial education is that which is given to groups segregated on the basis of previous trade experience, the enrollment being restricted to those who follow the trade or occupation taught. Such evening trade extension instruction may be given in the form of short unit courses, given either singly or as a progressive series, or it may consist of a course of instruction not divided into units.

One advantage of the short unit plan is that learners are not required to take instruction that seems to have remote application, or none at all. Another advantage is that when a learner leaves school at any time he will have a certificate showing what specific units of instruction—such as the operation of a universal miller or of a shaper—he has mastered at the time of his withdrawal from school.

An important consideration in industrial evening school instruction is that there be clear and distinct segregation of novices, apprentices, journeymen and foremen. Many cities have made the mistake of attempting to give industrial education to "mixed" groups having greatly varying backgrounds and capacities for such instruction.

## How the Schools are Meeting the Need

Two agencies for industrial education are here considered: public schools, and schools not under public control.

### Industrial Arts in the Fifth and Sixth Grades, and in the Seventh and Eighth Grades

There is very little in common between the industrial arts work of the fifth and sixth grades and the industrial arts (mechanic arts) of the

seventh and eighth grades. There are two distinct sets of teachers, two different supervisors, and the work is given in separate shops. Likewise there does not seem to be any unity of purpose for the two divisions of work.

**Industrial Arts.—Fifth and Sixth Grades.** The work of the fifth and sixth grades is planned in accordance with a set of aims which were organized in 1917 independent of the shop work given in grades seven and eight, and it is on the basis of these aims that the work is now being conducted. As originally planned, the work of grades five and six was intended to give the child an idea of general handwork as found in the occupational content of the building trades, the textile industry, and the printing and bookbinding industry. This program is being carried out in accordance with the available facilities and the abilities of the pupils. Ninety minutes of instruction is given each week.

In addition to the shop work of grades five and six, supplementary instruction is given in the form of shop visits and illustrated talks. The teachers of fifth-grade industrial arts supplement the handwork by lantern-slide exhibitions and visits to neighborhood industries. Each fifth-grade teacher is said to make two and sometimes three industrial visits each year. In grade six all pupils visit the Commercial Museum for an industrial lecture. Pupils in this grade also make visits to mills outside of the district, at least twice during each year and sometimes more.

About 58 per cent of the boys of the fifth and sixth grades of the city schools were served in 1920–21 by industrial arts instruction.

Seven schools have print shops which serve about twelve hundred boys of the seventh and eighth grades. This work is of a very elementary type. Some creditable work is done, however, in the sixty minutes per week allotted to this instruction. The remainder of the boys in the seventh and eighth grades are given instruction in mechanical drawing, under the direction of the department of drawing for a similar sixty-minute period.

**Industrial Arts.—Seventh and Eight Grades.** Industrial arts (mechanic arts), which is entirely woodwork, is given in the seventh and eighth grades. The shop work is planned to meet requirements as indicated in the Aims of Industrial Arts (Mechanic Arts) in the Seventh and Eighth Grades which are stated on pages 28 and 29 of this section. Prior to the school-year of 1918–19 there was no one group of aims for all of this work throughout the city. Every teacher of each shop was free to evolve his own ideas and his own course of study. In 1918 the present set of aims was adopted and the present course of study has been evolved from them.

Very little formal exercise work is given. This is commendable, as well as the fact that the work is so organized that pupils are bound to realize the money value of the projects in which they engage. The projects embody the principles of joinery and elementary cabinetmaking. In all, fifteen projects are contained in the course. It may be noted, from the Charge List that for certain of the numbered projects a range of selection is allowable.

Two hours a week is devoted to this work for the two-year period it is in operation. As near as can be estimated, from 90 to 95 per cent of the boys of the seventh and eighth grades receive the benefits of instruction in woodwork. The small percentage that are not reached attend school in the sparsely settled portions of the city and cannot be taken care of with the present shop facilities.

**Coördination of the Work.** The ultimate idea of the present administration is to organize the industrial arts work of the fifth, sixth, seventh, and eighth grades, and the high school in coördination with each other. It is planned to allow specialization with vocational purpose from the ninth grade on.

With the completion of the present junior high school program there will come to all boys of the city the opportunity of a course in elementary woodwork in the seventh grade and a variety of shop experiences in the eighth grade.

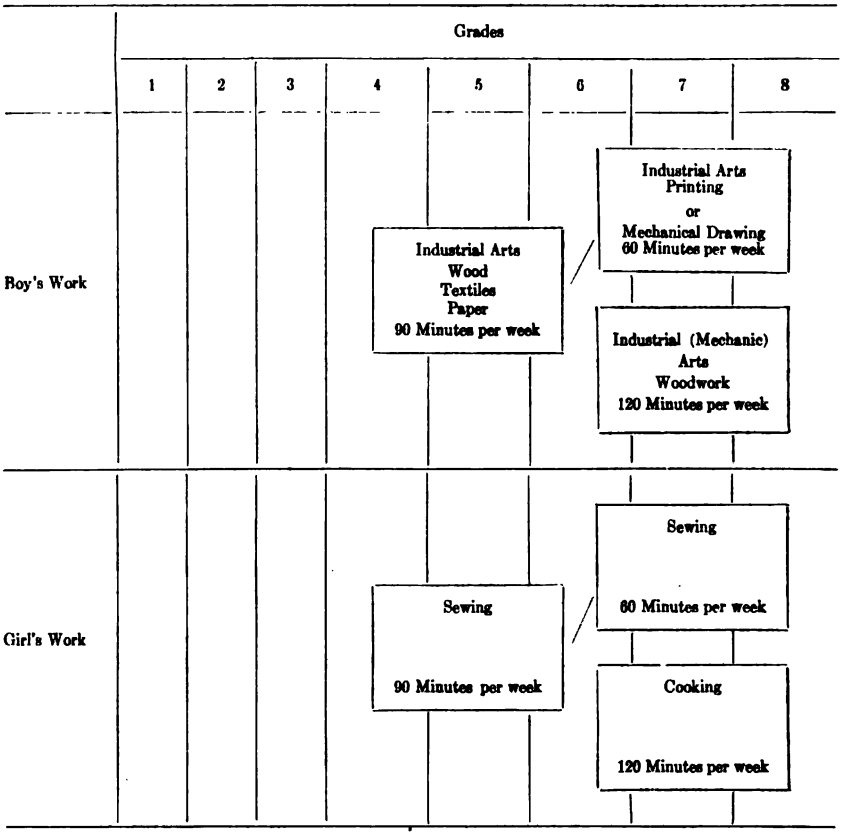
**Aims of Industrial Arts Instruction in the Fifth and Sixth Grades.** The aim of industrial arts in the fifth and sixth grades, as stated in a Board of Education booklet on the subject, is to give the pupil a sense of contact with workers of many types; to gain some of their knowledge of the peculiarities and the manipulation of various materials; and to enter into the experiences of such workers as the carpenter, the bookbinder, the weaver, the dyer, the potter, the metal smith, etc., thus gaining as wide industrial information and as valuable experience as possible, and the preparation for a better understanding of fellow men.

Five typical lines of industrial work have been selected, around which to group the handwork activities and their related subject-matter, viz., textiles, wood, paper, metal, clay, and their allied industries. Each teacher of industrial arts in the fifth and sixth grades submits a list to the supervisor containing representative industries in the vicinity of the school.

**Fifth and Sixth Grades Equipment Evaluation.** The equipment furnished for the industrial arts work of these grades is well-adapted to the purpose for which it was intended. There is an apparent shortage of space and equipment, however, to meet the needs of the city on the

present basis. This shortage is indicated by the fact that at present but 58 per cent of the boys are receiving the benefits derived from the work.

PROGRESSIVE CHART OF PRACTICAL ARTS ACTIVITIES IN THE GRADE SCHOOLS OF PHILADELPHIA




PUPILS RECEIVING INDUSTRIAL ARTS INSTRUCTION—FIFTH AND SIXTH GRADES

Total number of pupils (boys) in Public Schools, fifth and sixth grades ..... 24,316
Number of such pupils receiving instruction in Industrial Arts 14,062

(Fifty-eight per cent receive instruction in Industrial Arts in the fifth and sixth grades.)

A significant fact should be noted in regard to the utilization of the equipment. Due to the fact that the various activities were distributed over the year in single units, *i. e.*, one-half term woodwork, one-fourth term textiles and one-fourth term bookbinding, each unit of equipment is idle a great amount of time. This condition could be obviated to

some extent by having each type of work mentioned in operation throughout the entire year, thus making some of the present equipment available for additional centers.

**Industrial Arts (Mechanic Arts) Shops in Philadelphia Elementary Schools, Grades 7 and 8**

| | |
|---|---|
| Total Enrollment | 18,729 |
| Total Grades 7, 8, and 9 | 14,546 |
| Total Continuation | 3,833 |
| Total Special | 350 |
| | 18,729 |

Each shop was formerly used for two classes a day, one in the morning, and one in the afternoon, The plan that has recently been put into operation calls for three classes a day. The lessons are planned for a standard two-hour period. Under the former plan of two classes a day, the morning class was more favored in point of time, due to the morning session being the longer one.

The mere possibility of serving half again as many boys commends the new plan as being a good one, considering the present limitations of facilities. No one would be likely to contend, however, that two hours a week of shop instruction is at all adequate for boys of the early adolescent age. The new junior high schools, as they are gradually introduced should make it possible to give more real prevocational shop experience than is provided under the present plan.

**Aims of Industrial Arts (Mechanic Arts) Instruction in the Seventh and Eighth Grades.** On February 11, 1918, a report was submitted to the Superintendent of Schools on organization of the course of study for seventh and eighth grade shops. Out of this, came the present standardized course with its statement of aims.

The following seven aims covering seventh and eighth grade wood shop instruction are set forth in this report:

**1. Bodily and Mental Development and Coördination.** It should develop the muscles and the nerve fibres and brain cells controlling them, and bring about the coördination of these elements. Sufficient practice should be given in the essential processes to establish proper habits.

**2. Vocational Contribution.** This habit formation is a vocational contribution in so far as the habits and abilities thus acquired are applicable in one or more trades. The principal function of the training is the growth and development in every pupil of a rich apperceptive

background for future experiences. The shopwork, therefore, should be as varied and extensive as conditions will permit.

**3. Cultural Contribution.** It should make a contribution to the cultural development of the pupil by increasing his possession of useful knowledge, his ability to create things, and to appreciate efficient production; and by developing for him a larger range of interests.

**4. Ethical Contribution.** It should contribute to the ethical life of the pupil through the development of proper ideals of work and service.

**5. Correlation and Integration with Classroom Work.** It should serve as an interest center about which will be developed relationships with the subjects presented in the classrooms. The accomplishment of this purpose is important, though difficult, and necessitates coöperation between the shop teachers and the other members of the faculty.

**6. Stimulus to Further Education.** The instinctive desire of adolescents to work with their hands, and to determine the cause of things, gives shopwork a peculiar advantage which should be utilized as a stimulus to boys to remain in school. This purpose is further served by reducing the objectionable features of abstract classroom work by relating it when possible to shop experiences.

**7. Enriching Vocabulary.** It should serve as an opportunity for vocabulary building. This aim indicates the need for shop teachers with both preliminary education and professional training as teachers.

**Discussion of Aims.** The Committee on Vocational Education of The National Education Association prepared a report on vocational secondary education which was published by The United States Department of Interior, Bureau of Education, in its Bulletin, 1916, November 21. In this report the controlling purpose of industrial arts education is set forth in four parts as follows: (a) the increasing of the pupil's general intelligence, (b) the stimulation of his powers of wise utilization, (c) the laying of foundations for vocational choice and (d) the interpreting of contemporary life. While a number of other aims have been set up, from time to time, by other individuals and agencies, the ones just mentioned are very inclusive in scope and are probably the most widely accepted of any which have been evolved.

A careful study of the aims as set forth for the industrial arts (mechanic arts) work of the seventh and eighth grades in Philadelphia reveals the fact that the purposes of industrial arts instruction as set forth in points (a), (b), and (d) of the N. E. A. Committee's definition have been covered for the work of these grades.

It is important to note, however, that point (c) which calls for instruction which will lay "foundations for vocational choice" has not

been definitely specified as an objective for the work of the grades under discussion. The fact that educational and vocational guidance have come into a position of prime importance in the education of youth would seem to indicate that a major aim for industrial arts should be to give vocational guidance in the field of industrial activity which will stimulate intelligent choice of occupation. It is suggested, therefore, that a contribution will be made to the effectiveness of the work of the seventh and eighth grades if the instruction is in part designed to "lay foundations for vocational choice."*

It is further suggested that a contribution might be made to the effectiveness of the aims as now set up and of any additional aims which may in the future be adopted if they be further classified with respect to the several major aims and the contributing minor aims. There are a number of ways by which such a classification may be accomplished. For purposes of illustration a re-classification is given below. The idea for this re-classification is based on the controlling purpose of industrial arts education as set up by the N. E. A. committee and the present aims of the Philadelphia Schools for seventh and eighth grade industrial arts (mechanic arts) instruction, with the addition of a contribution toward vocational choice.

Aims for instruction in industrial arts subjects shall be

1. To increase the general intelligence of the pupil.
   a. By increasing his possession of useful knowledge.
   b. By the development of a rich apperceptive background.
   c. By enriching his vocabulary.
2. To stimulate the pupil's powers of wise utilization.
   a. By the development and correlation of the mind and muscles.
   b. By contributing to the formation of proper habits.
   c. By increasing his ability for original thought and action.
   d. By developing an appreciation of efficiency.
   e. By providing a stimulus to further education.
3. To help the student lay the foundations of vocational choice.
   a. By providing experiences in school on machines and processes of various trades.
   b. By analyzing and assembling machines.
   c. By visiting industrial plants.
4. To assist the student to a proper interpretation of contemporary life.
   a. By developing a large range of interests.
   b. By developing proper ideals of work and service.
   c. By developing an interest center around which to build relationships with classroom instruction.

*See Addenda.

The report of February 11th, previously alluded to, further states that the Philadelphia course has been developed from a comparison of a number of courses in use by teachers locally and elsewhere, and a selection made which is based upon common practice. It is intended to include a sequence of processes as follows:

1. Planting.
2. Measuring and truing, laying out.
3. Chiseling.
4. Sawing.
5. Assembling, including fastening.
6. Finishing.
7. Boring.

The course is organized in terms of projects which are furnished in the form of blueprints.

While not all of the shops were equipped originally in the same way, in general no machinery has been provided. The individual bench unit is found in most cases equipped with a rapid-acting vise.

A standard list of equipment and tools has been adopted and is used as a basis for the replacements in schools not equipped originally in conformance with this plan.

**Seventh and Eighth Grade Equipment Evaluation.** The standard equipment is adequate to meet the needs of the present course of study. It is noted, however, that the present facilities will accommodate only bench woodworking. To meet the need in a larger way and to enlarge the scope of industrial arts (mechanic arts) in the seventh and eighth grades, it will be necessary to provide for a greater variety of shop activities.

Most of the shops are equipped with benches, tools, etc., according to the requirements of the standard equipment. Of the 64 shops now serving the pupils of the seventh and eighth grades for industrial arts (mechanic arts) instruction nearly 90 per cent are now equipped according to standard specifications. Plans have been made to equip the remaining 10 per cent to meet the minimum standard by September 1, 1921.

In the great majority of cases the equipment found in the shops was of good quality and was being used to good advantage in carrying out the course of study.

Four of the centers were cramped for room and did not have sufficient equipment to provide adequately for the pupils which the shops serve. These shops were found at the Meade center (1 shop), Landreth Annex (1 center), Hay (1 shop), and Germantown (1 shop).

Consumable supplies are furnished to the wood shops of the seventh and eighth grades, the continuation schools, and the junior high school for each half-year in a unit based upon 250 boys per week.

The articles made are somewhat typical of elementary wood shop courses, the country over.

From the standpoint of successful administration, there is much to be said in favor of standardization. There is, however, always a danger in having shop work too cut-and-dried; and reasonable flexibility should be maintained in the presentation of any definitely outlined course.

**Courses of Study in the High Schools.—Industrial (Mechanic) Arts and Vocational Industrial Courses.** Shop work and mechanical drawing are given in the Philadelphia day high schools for boys. Two types of shop work are offered, Industrial Arts (Mechanic Arts) Courses which are not vocational, and Industrial (trade) courses which are vocational in intent.

Industrial Arts, called locally "Mechanic Arts," courses aim for general values, always keeping in mind college entrance requirements. Industrial or trade courses, on the other hand, aim to fit the boy for useful employment, and the courses are so shaped as to facilitate the transition from school into a wage-earning occupation.

These two types of work were until recently carried on in different kinds of schools. Industrial Arts (Mechanic Arts) was offered in the high schools, serving boys, while Industrial Education (trade instruction) was to be found only in the Boys' Trade School.

The present organization of Central High School includes as an annex what was formerly the Boys' Trade School at Seventeenth and Wood Streets, and now the two types of courses mentioned are accredited to that high school. The influence of this merging of a trade school with a classical high school has extended to two of the other high schools, and has led to the introduction of industrial courses in the West Philadelphia High School for Boys and the South Philadelphia High School for Boys. This work is not emphasized in a large way in the latter two schools, but it is noteworthy to see industrial courses developing in schools which have hitherto clung to the traditional high school attitude, emphasizing cultural values and college preparation for the entire group of its pupils regardless of their future intentions as to a vocation.

In considering course material, the organization of departments in the various schools should be noted. In the Central High School, shop work is in charge of a department head, while art and drawing are in charge of a different head. However, the drawing pertaining to shop work is handled largely by the shop head in a manner similar to that which obtained under the previous organization of the Boys' Trade School.

In the West Philadelphia High School for Boys, shop work and drawing are under two separate heads. This is also true for Northeast High School and the South Philadelphia High School for Boys. Both shop work and drawing are under one head in the Germantown High School and in the Frankford High School. This arrangement, taken together with the fact that there is no specialist in actual authority over these various heads in a sense of city-wide supervision of subject-matter, is a basis from which to view the courses in shop and drawing offered in the high schools of Philadelphia. There is no syllabus for any part of the work and as long as the present organization obtains, it will be impossible definitely to unify the work for the entire city system.*

Drawing is given throughout the four years in the high schools and is varied in extent and type to meet the aims of the several courses. It will be noted that drawing is given as part of every high school course. Special courses are offered in Mechanical and in Architectural Drafting and all shop courses include drawing as a supporting subject.

Each school has its own special courses in drawing, and while the amount of instruction given in each of the six boys' high schools is fairly constant, the procedure and treatment vary. The following comparative programs for three schools will illustrate typical differences in courses:

SEQUENCE OF DRAWING GIVEN IN THE INDUSTRIAL ARTS (MECHANIC ARTS) COURSE IN THREE DIFFERENT HIGH SCHOOLS

| Grade | Term | Frankford Boys' | West Philadelphia for Boys | Northeast High School |
|---|---|---|---|---|
| 9 | 1 | Design: historic ornament, wall-paper, oilcloth, stained glass (in colors) | Constructive: elementary (free-hand and instrument) | Architectural details of building. Construction and design. Constructive drawing |
| 9 | 2 | Mechanical drawing: lettering, projections | Constructive: advanced (free-hand and instrument) | Architecture: history of the orders, constructive drawing |
| 10 | 1 | Free-hand: perspective, shadows | Design: elementary (free-hand and instruments) | Architecture: drawing perspective Architecture: constructive drawing |
| 10 | 2 | Mechanical drawing: intersections, machine | Design: advanced and colors | Architecture: drawing, projection of shadows, constructive drawing |
| 11 | 1 | Free-hand: cast light and shadows | Machine details (free-hand and instruments) | Representative drawing: drawing from casts, etc. Constructive drawing |
| 11 | 2 | Mechanical drawing: gears, cams, simple machinery | Perspective (instruments) | Representative drawing: design, constructive drawing |
| 12 | 1 | Architectural drawing | Machine design (instruments) | Representative drawing: historic, ornament, design. Constructive drawing: intersections of solids, etc. Constructive drawing: projections |
| 12 | 2 | Architectural drawing | Architectural (instruments mostly) | Representative drawing: free-hand, perspective constructive drawing, use of instruments, projects, etc. |

A group of 23 teachers of drawing who teach boys in Industrial Arts (Mechanic Arts) courses were considered in relation to a few points having to do with course material.

*See Addenda.

In teaching drawing, it was found that texts are utilized in very few instances and that the blue print method is used in presenting course material by less than half of the teachers under consideration. Models of geometric figures, plaster casts, machines and machine parts, utensils, tools and other objects contribute in the presentation of the work.

Drawing is given as related work in connection with the trade course taught.

## Report of Committee on Machine Shop Course for Industrial Arts (Mechanic Arts)

We, the committee appointed to recommend a course in machine work for the high schools, have completed our work and present the following as our report:

At the outset we adopted the following as practical aims to guide us in the selection of a *course in machine work*.

1. To furnish an apperceptive background for the intelligent understanding of mechanical processes.
2. To develop an appreciation of value in materials and workmanship.
3. To familiarize the student with the proper care and use of tools and machinery.
4. To teach the properties and uses of materials used in the machine trades.
5. To develop ideals of accuracy, initiative, and self-reliance.

In our judgment, these aims can best be carried out by teaching a few of the fundamental machine operations. Along with each of these operations, certain related information should be imparted dealing with the properties of materials, the mechanical principles of the machines, and mathematical calculations.

We believe these fundamental operations are more effectively taught when embodied in useful objects and should be so taught whenever objects are available and time permits. The objects selected for teaching a given principle should vary in difficulty so that the instructor can take into account the individual differences of his pupils when assigning work.

In selecting projects for teaching the elements, we have gone over all of the projects that have proved suitable in the various schools. We have adopted some of these as they are, and others with modifications where we could effect economy, or where the aims by which we were guided made changes necessary.

In selecting upper class projects for the application of these principles, we took into account the difference in machines, tools, and equipment and the individual preference of the teachers. We feel that the projects that have proven adaptable to school shop work, and for which patterns, tools and fixtures are on hand, should be adopted and be available for all schools. As new projects are developed, they too should be at the disposal of all schools.

Attached hereto we submit a list of elements, projects and associated knowledge that the committee recommends.

In trying to devise a uniform course, the difference of equipment in the various schools came up frequently, and we were forced to the conclusion that our recommendations can be carried out only by the introduction of a more or less uniform equipment.

**Elementary Machine Work.** The work of the department shall consist of chipping, filing, drilling, tapping, sawing, hardening and tempering, and speed lathe work.

| Element | Project | Associated Knowledge |
|---|---|---|
| Chipping and Filing | Beveled Block or Angle Plate<br>Hack Saw Frame Calipers | Tool Grinding<br>Files—Kinds and Uses |
| Drilling, Tapping and Threading | Beveled Block<br>Scriber<br>T Tap Wrench<br>Screws for Parallel Clamps | Drill Standards<br>Speeds, Lubricants<br>Tap and Thread Standards |
| Hardening, Tempering | Scriber<br>Nail and Center Punches | Composition of Steel |
| Speed Lathe Work | Scriber<br>Nail and Center Punches<br>Screws for Parallel Clamps | Tool Setting<br>Tool Grinding |

## Machine Tool Work

| Element | Project | Associated Knowledge |
|---|---|---|
| Centering and Straight Turning | Use some piece that will be utilized in a later project | Care of Machines<br>Relative Accuracy<br>Tool Grinding and Setting |
| Taper Turning | Lathe Center<br>Screw Mandrel<br>Plug Gauge (taper) | Calculations of Taper<br>Different Kinds of Tapers<br>Methods of Cutting Tapers |
| Screw Cutting | Screw Arbors<br>Screw Jack<br>Metal Bench<br>Vise | Right and Left Hand Thread<br>Computations of Gearing, Belt and Pulley Comparison<br>Various Kinds of Threads<br>Computation of Clearance Angle |
| Chucking and Boring | Ring and Plug Fitting<br>Screw Chuck for Wood<br>Lathe | Force, Running and Shrink Fits<br>Grinding of Tools for Cast Iron |
| Grinding | Lathe Centers<br>Joiner Knives<br>Mandrels<br>Milling Cutters | Grade and Grain of Wheels<br>Wet and Dry Grinding<br>Principles of Abrasive Wheels |
| Shaper Work | V-Block<br>Parallel Clamp (steel)<br>Drill Vise<br>Bench Vise | Angles of Rake and Clearance |
| Planer Work | Cast Iron Bars (work clamped to platen) | Distortion after Removing Scale |
| Milling Machines | Flat Milling<br>Parts of Drill Vise<br>Dividing Head<br>(Work with Dividing Head shall be part of an advanced project) | Speeds and Feeds of Cutters<br>Principles of the Dividing Head |

### Advanced Projects

Bench Grinder
Bench Vise
Model Gun
Motor
Plug and Ring Gauges
Taps and Reamers
Bar Clamps

### List of Materials for Machine Shop Projects

Cold rolled steel, round, ⅛ to ⅝ inch by 16ths.
Cold rolled steel, round, ¾ x ⅞ inch, 1½ x ¼ inch, ⅛ x 1 inch.
Machinery steel, round, ¾ inch, ⅞ inch, 1 inch, 1⅛ inch, 1¼ inch, 1½ inch.
Tool steel, round (specially annealed "Colonial").
Einwechter & Myers, ¾ inch, ⅞ inch, 1 inch, 1⅛ inch.

Einwechter & Myers, ⅜ inch octagonal and hexagonal.
Drill rod, 1/16 inch, ¼ inch, 1/16 inch, ⅜ inch, ½ inch.
Brass, round, ⅜ inch, ¾ inch.
Brass, tubing, 1 inch outside, ⅛ inch wall.
Brass tubing, ¾ inch outside, 1/16 inch wall.

**Castings**

| | |
|---|---|
| Beveled Block 2½ inches square | Bench Grinder |
| Angle Plate | Bench Vise |
| Screw Jack Base | Model Gun |
| Screw Jack Cap | Bar Clamp |
| V-Block | Plug Fitting |
| Drill Vise (3 patterns) | Ring Fitting |
| Planer Castings 1½–4–24 | Battery Motor |
| Planer Castings 1¾–1¾–14 | |

As matter of economy, many of the above patterns should be made of metal. In addition to materials listed, we recommend that each shop be supplied with a stock of screws, nuts, washers, small tools and such other materials as are needed for general use but cannot be specifically listed.

We recommend the continuance and extension of the present practice of providing reference books for use of teachers and pupils.

Respectfully submitted with unanimous approval of the committee,

J. Norwood Baker,
Howard B. Entwisle,
Robert H. Krewson,
William A. LaSor,
Edward M. Lawley,
Carl A. Roessler,
Frank R. Robinson, Chairman.

This course is the basis for work in the machine shops of the Boys' High Schools. No essential difference is noticeable between practice in the Industrial Arts (Mechanic Arts) Courses and the Industrial (trade) courses as carried on at present except in the number of hours per week devoted to the work. The latter course gives more emphasis in point of time but the nature of the work comprehends the individual *project* as a unit in place of *production* for the needs of the school plants or for sale in the open market.

While the course just given provides for a sequence of shop work it is noted that most of the schools vary this order in some detail. This would appear to be due to exigencies in schedule making rather than any disposition on the part of individuals to alter arbitrarily the course to suit personal notions.

The following has been agreed upon by the high school principals for all high schools in the Industrial Arts (Mechanic Arts) Course.

INDUSTRIAL ARTS (MECHANIC ARTS) COURSE

| First Year | Points First Term | Points Second Term | Second Year | Points First Term | Points Second Term |
|---|---|---|---|---|---|
| English | 4 | 4 | English | 4 | 4 |
| Physical Education | 2 | 2 | Physical Education | 2 | 2 |
| Civics or Ancient History | 4 | 4 | Geometry | 4 | 4 |
| General Science | 4 | 4 | Patternmaking | 6 | 0 |
| Algebra | 4 | 4 | Sheet Metal Molding | .. | 6 |
| Joinery | 4 | 4 | Drawing | 2 | 2 |
| Drawing | 4 | 4 | Biology or Physical Science | 4 | 4 |
| Elective: | | | Elective: | | |
| Foreign Language or Word Study | 4 | 4 | Foreign Language | 4 | 4 |
| **Third Year** | **First Term** | **Second Term** | **Fourth Year** | **First Term** | **Second Term** |
| English | 4 | 4 | English | 4 | 4 |
| Physical Education | 2 | 2 | Physical Education | 2 | 2 |
| U. S. History | 4 | 4 | Social Science | 4 | 4 |
| Smithing | 4 | .. | Physiology and Hygiene | 1 | 1 |
| Elementary Machine | .. | 4 | Elective: | | |
| Drawing | 4 | 4 | Machine | 6 | 6 |
| Chemistry or Physics | 3 | 3 | Drawing | 2 | 2 |
| Chemistry or Physics Laboratory | 2 | 2 | Applied Science | 4 | .. |
| Elective: | | | | | |
| Foreign Language | 4 | 4 | | | |

The majority of industrial (trade) work in the day schools is concentrated in the Central High Annex at Seventeenth and Wood Streets. The following courses are used in this school.

## Industrial Course

CABINETMAKING, CARPENTRY, MACHINE CONSTRUCTION, PATTERNMAKING

As in effect Fall Term, 1920–21

| First Year | H Term | G Term | Second Year | F Term | E Term |
|---|---|---|---|---|---|
| Algebra | 4 | 4 | Algebra | 4 | .. |
| Drawing—Mechanical | 4 | 4 | Drawing—Related | 4 | 4 |
| English | 4 | 4 | English | 4 | 4 |
| History—Ancient and Medieval (Industrial) | 4 | 4 | Geometry—Plane | .. | 4 |
| Science—General | 4 | 4 | History—English Economic | 3 | .. |
| Shop—Related | 4 | 4 | History—American Economic | .. | 3 |
| Shop—Trade | 6 | 6 | Physics | 4 | 4 |
| Physical Education | 0 | 0 | Shop—Trade | 8 | 8 |
| | | | Shop—Related | 3 | 3 |
| | 30 | 30 | | 30 | 30 |
| **Third Year** | **D Term** | **C Term** | **Fourth Year** | **B Term** | **A Term** |
| Chemistry | 4 | 4 | (Coöperative—one-half time in industry, one-half time in school, alternate two-week periods) | | |
| Drawing—Related | 4 | 3 | | | |
| Economics (Social Science) | 3 | 3 | | | |
| English | 4 | 4 | | | |
| Geometry—Plane | 5 | .. | Bookkeeping | 2 | 2 |
| Shop—Trade | 10 | 9 | Drawing—Related | 2 | .. |
| Strength of Materials | .. | 2 | English | 5 | 5 |
| Trigonometry—Plane | 0 | 5 | Shop—Trade | 10 | 12 |
| | | | Strength of Materials | 5 | 5 |
| | | | Trigonometry—Plane and Applications | 6 | 6 |
| | 30 | 30 | | 30 | 30 |

## Industrial Course

### ELECTRICAL CONSTRUCTION

As in effect Fall Term, 1920–21

| First Year | H Term | G Term | Second Year | F Term | E Term |
|---|---|---|---|---|---|
| Algebra | 4 | 4 | Algebra | 4 | .. |
| Drawing-Mechanical | 4 | 4 | Drawing—Mechanical | 2 | 2 |
| English | 4 | 4 | Electricity | 3 | 3 |
| History—Ancient and Medieval (Industrial) | 4 | 4 | Geometry—Plane | .. | 4 |
| Science—General | 4 | 4 | History—English Economic | 3 | .. |
| Shop—Related—Wood or Metal | 2 | 3 | History—American Economic | .. | 3 |
| Wiring—Electrical | 6 | 7 | English | 4 | 4 |
| Physical Education | 2 | 0 | Physics | 4 | 4 |
| | | | Shop—Related—Wood or Metal | 4 | 4 |
| | | | Wiring—Electrical | 6 | 6 |
| | 30 | 30 | | 30 | 30 |
| **Third Year** | **D Term** | **C Term** | **Fourth Year** | **B Term** | **A Term** |
| Chemistry | 4 | 4 | (Coöperative—one-half time in industry, one-half time in school, alternate two-week periods) | | |
| Drawing—Mechanical | 2 | 2 | | | |
| Economics (Social Science) | 3 | 3 | | | |
| Electricity | 3 | 3 | | | |
| English | 4 | 4 | Bookkeeping | 2 | 2 |
| Geometry—Plane | 5 | .. | Drawing—Mechanical | 2 | .. |
| Laboratory—Electrical | 7 | 7 | Electricity | 3 | 3 |
| Shop—Related (Machine) | 2 | .. | English | 5 | 5 |
| Strength of Materials | .. | 2 | Laboratory—Electrical | 7 | 9 |
| Trigonometry—Plane | .. | 5 | Strength of Materials | 5 | 5 |
| | | | Trigonometry—Plane and Applications | 6 | 6 |
| | 30 | 30 | | 30 | 30 |

## Industrial Course

### ARCHITECTURAL AND MECHANICAL DRAWING

As in effect Fall Term, 1920–21

| First Year | H Term | G Term | Second Year | F Term | E Term |
|---|---|---|---|---|---|
| Algebra | 4 | 4 | Algebra | 4 | .. |
| Drawing—Trade | 8 | 8 | Drawing—Trade | 8 | 8 |
| English | 4 | 4 | English | 4 | 4 |
| History—Ancient and Medieval (Industrial) | 4 | 4 | Geometry—Plane | .. | 4 |
| Science—General | 4 | 4 | History—English Economic | 3 | .. |
| Shop—Related—Wood or Metal | 4 | 4 | History—American Economic | .. | 3 |
| Physical Education | 2 | 2 | Physics | 4 | 4 |
| | | | Shop—Related—Wood | 4 | 4 |
| | | | Shop—Related—Metal | 3 | 3 |
| | 30 | 30 | | 30 | 30 |
| **Third Year** | **D Term** | **C Term** | **Fourth Year** | **B Term** | **A Term** |
| Chemistry | 4 | 4 | (Coöperative—one-half time in industry, one-half time in school, alternate two-week periods) | | |
| Drawing—Trade | 14 | 12 | | | |
| Economics (Social Science) | 3 | 3 | | | |
| English | 4 | 4 | | | |
| Geometry—Plane | 5 | .. | Bookkeeping | 2 | 2 |
| Strength of Materials | .. | 2 | Drawing—Trade | 12 | 12 |
| Trigonometry—Plane | .. | 5 | English | 5 | 5 |
| | | | Strength of Materials | 5 | 5 |
| | | | Trigonometry—Plane and Applications | 6 | 6 |
| | 30 | 30 | | 30 | 30 |

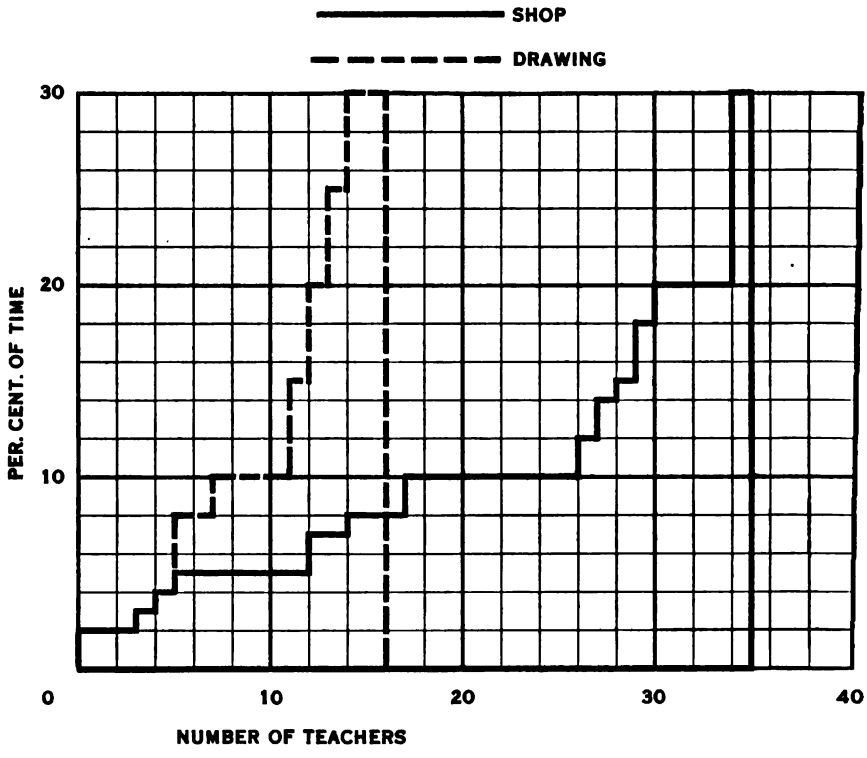



DIAGRAM 1

Percentage of Class Time Devoted to Lecture by Teachers of Drawing and Shop

It will be noticed from the graph, Diagram 1, that a number of teachers spend entirely too much time lecturing to pupils. This is a practice that should be changed.

Class discussions occupy a certain definite percentage of the class time of 17 drawing teachers and 28 shop teachers. Diagram 2 shows this in the form of a graph.

Demonstrations by the teachers in the nature of blackboard sketches, correct setting-up of work on machines, tool grinding and in fact all instruction leading to imitation, were found to occupy a somewhat fixed proportion of the class time of shop teachers. Drawing teachers had a similar distribution of time for class demonstration. This is shown graphically and the percentage of the entire time of instruction is indicated in Diagram 3.

A few teachers of drawing and shop work make a practice of having the pupils demonstrate before the class. The group doing this is relatively small, as is shown in the following graph, Diagram 4.

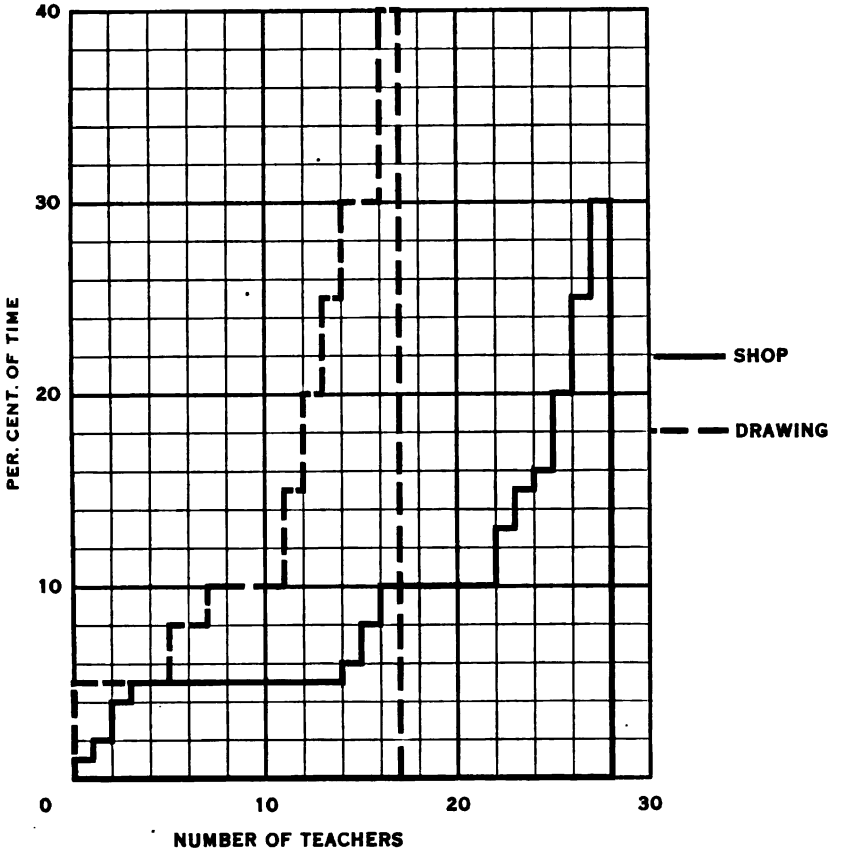



DIAGRAM 2

Percentage of Class Time Devoted to Class Discussion by Teachers of Drawing and Shop

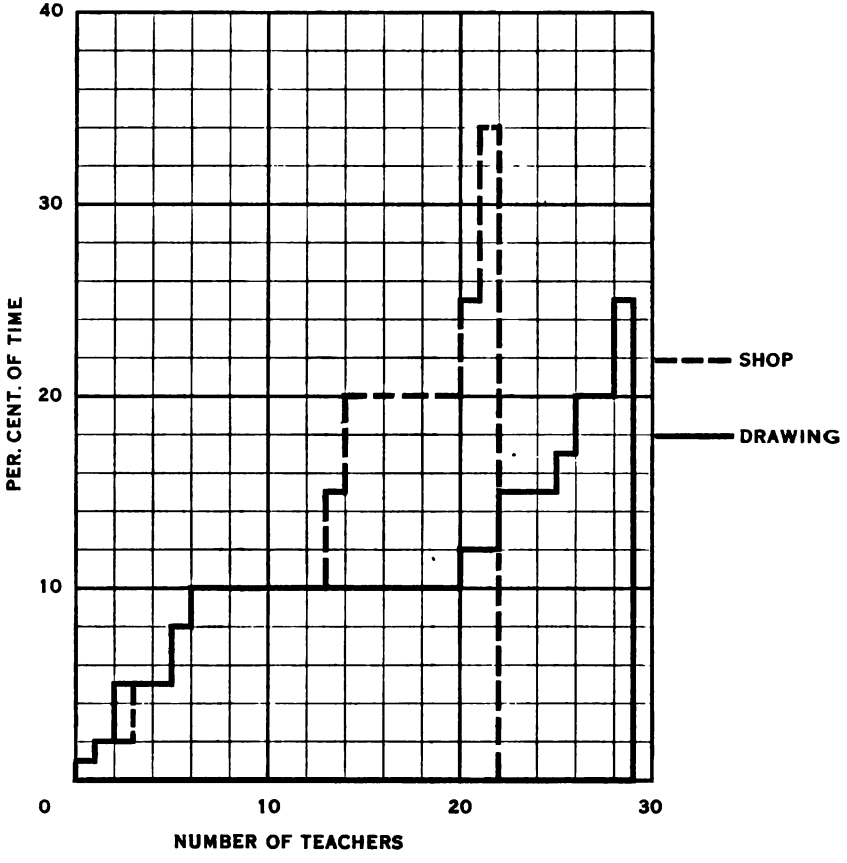



DIAGRAM 3

Percentage of Class Time Devoted to Demonstration by the Teachers in Shop and Drawing

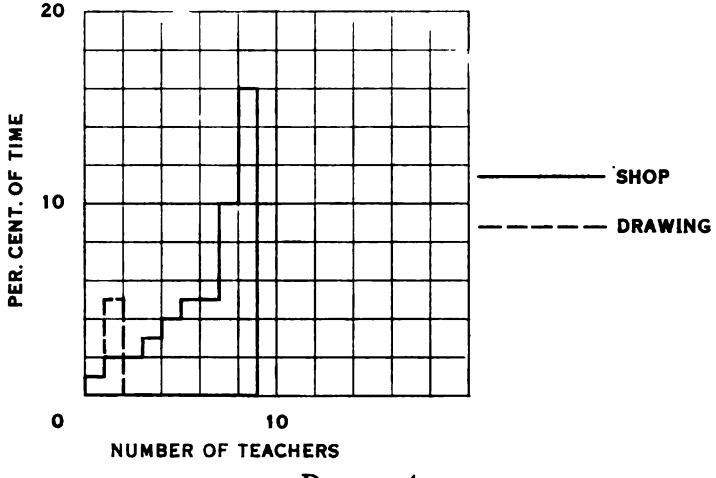



DIAGRAM 4

Percentage of Class Time Devoted to demonstration by Pupils in the Drawing Rooms and Shops

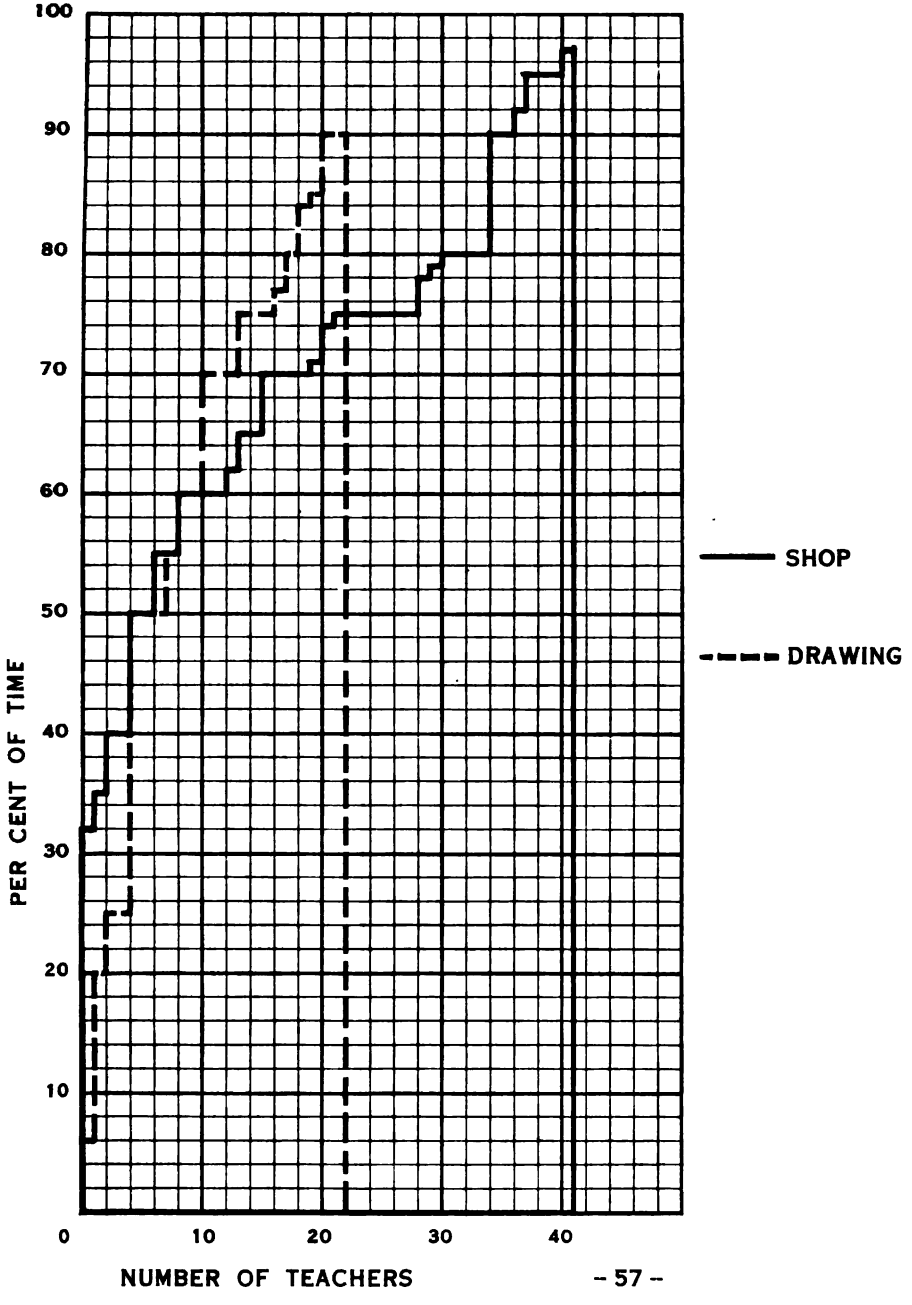



DIAGRAM 5

Percentage of Class Time Devoted to Individual Instruction by Teachers of Drawing and Shop Work

The nature of certain instruction in both shop work and drawing has led a few teachers to set aside a portion of the entire time of the class for the purpose of taking small groups for consideration of some special phase of the subject. This practice is more marked in shop work than in drawing, as is shown by Diagram 6.

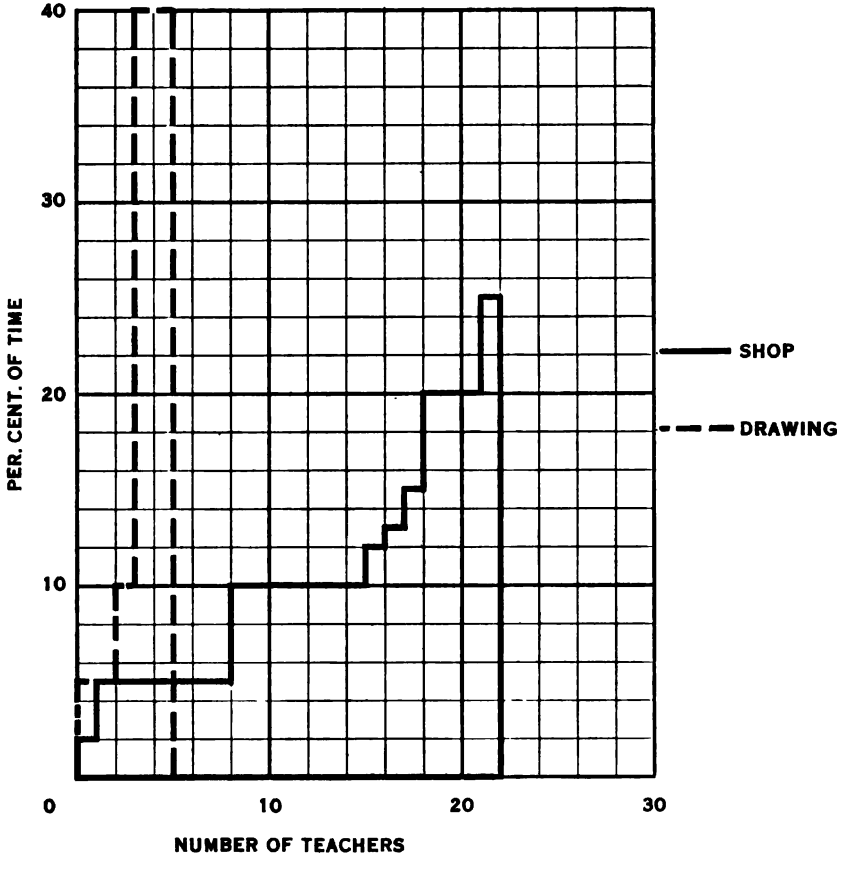



DIAGRAM 6

Percentage of Class Time Devoted to Instruction in Small Groups within the Class by Teachers of Drawing and Shop Work

**Production Work in School Shops.—Definition of Production and Commercial Production.** Almost anything that is made from raw materials, or carried one or more steps forward from the raw material stage to finished production, can be termed *production*. If this material, be it a casting produced from a foundry or a finely adjusted machine complete, is put upon the market, it may be termed *commercial production*. Industrial enterprises generally are in the latter class.

There is a further differentiation of commercial production that should be indicated, as it has an application to school shops. There are manufacturing enterprises that produce one or more "specialties" in quantities, as for example machine lathes or wash tubs. There are other concerns that operate on a "jobbing" plan, doing work on a small-order basis; for example furniture repair and making furniture to order. There are many variations of these two forms of commercial production, both in a given industry and between industries.

It is understood that work done on a productive basis must be practical, and that the processes involved must be according to accepted trade practice.

**Production in the High School Shops.** There has been no commercial production in the high schools during the twelve months ending January 31, 1921, and comparatively little done in school shops on order from the Board of Education. Of the latter there have been twelve orders, amounting in value to approximately $200. Orders from the Board for the present term include 100 work benches and 12 bench grinders.

The regulations of the Board of Public Education provide that all articles made by boys and taken home shall be paid for to the extent of the cost of materials.

Following are the returns made from the different high schools, of money collected from the pupils in payment for the materials used in projects which were made in the schools and taken home by the boys:

FOR THE TERM, FEBRUARY 1 TO JUNE 26, 1920

| School | Number of Shops | Amount |
|---|---|---|
| Central | 5 | $117.68 |
| Northeast | 5 | 166.83 |
| West Philadelphia | 5 | 102.85 |
| South Philadelphia | 5 | 100.76 |
| Germantown | 4 | 85.35 |
| Frankford | 5 | 75.58 |
| | | $649.05 |

FOR THE TERM, SEPTEMBER, 1920, TO JANUARY 31, 1921

| School | Number of Shops | Amount |
|---|---|---|
| Northeast | 6 | $187.45 |
| Central | 5 | 149.34 |
| Frankford | 6 | 134.94 |
| West Philadelphia | 6 | 130.42 |
| Germantown | 7 | 114.17 |
| South Philadelphia | 6 | 101.97 |
| | | $818.29 |

The finished value of articles, estimated as three times the cost of materials, would be $4402.04.

**Production in Elementary Schools.** There has been no commercial production in elementary schools; and no production for the Board of Education in the schools except such incidentals as minor repairs to chairs, etc., for the building in which shops are located.

The value of materials for projects taken home for the school-year ending June 30, 1920, for the seventh and eighth grades is as follows:

| | For Term Ending | |
|---|---|---|
| | June 25, 1920 | January 31, 1920 |
| Number of shops | 54 | 50 |
| Total return | $3,184.29 | $1,495.39 |
| Average | 58.97 | 29.90 |
| Minimum | 2.37 | 2.58 |
| Maximum | 819.36 | 94.47 |

**To What Extent Should Shop Work be Carried on a Quantity Production Basis.—Appreciation versus Production.** The extent that shop work should be carried on a quantity production basis depends somewhat upon two things: first, the type of course of which the shop work is a part and, second, the extent to which the productive work can be limited to instructional and appreciative content and a sufficient range of work given.

If a boy is in the right class and that class is preparing for college or technical school, a limited amount of repetition on work well chosen would not be a waste of time nor should it detract from appreciation. As a matter of fact, the skill that comes from repetition would be a decided appreciative asset. If the boy were expecting to enter a skilled trade the work should, by all means, be on a quantity production basis, well chosen. The dilatory shop habits of schoolboys entering industry are so frequently commented upon as to mark very clearly the need for recognition of the time factor in school shops. Work on a production basis, issued on a shop order, paralleled with a job card and checked with a time card may not be necessary to the conduct of all school shop classes but certainly is essential to boys preparing to enter industry.

The shop work in high and elementary schools should include some carefully supervised work done on a quantity production basis. The Seventeenth and Wood Streets Annex should be organized on a production basis, with a carefully selected program of work to be done on order for the Board of Education. The time element should be stressed through some such method as job and time cards, and the tool rooms and cabinets should have a check system in accord with well organized production.

### Buildings and Equipment—General Statement

**Senior High Schools.** Six senior high schools have shops for teaching practical subjects. Each of these schools will be taken up separately.

During the day-school sessions the shops and drawing rooms of the six schools are used for classes of industrial arts courses, called locally mechanic arts courses. The Central High School uses the Seventeenth and Wood Streets Annex entirely for the work of all-day trade courses and some of the classes from this school use the Broad and Green Streets Annex machine shop. At the West Philadelphia High School for Boys the machine shop and a drawing room are in use part of the time for recently installed trade courses in machine shop practice and drafting. The electrical shop of the South Philadelphia High School for Boys is in use part of the school-day for a trade course in electrical construction which was installed this year.

Five out of the six high schools use their shops and drawing rooms for evening classes. The plants are operated for 3 nights a week in two-hour sessions and for 24 weeks each year.

The shops and drawing rooms of the Central High School Annexes are used for 26 evening industrial classes, of the South Philadelphia High School for Boys for 9 evening industrial classes, of the Northeast High School for 13 evening industrial classes, of the West Philadelphia High School for 5 evening industrial classes and of the Frankford High School for 10 evening industrial classes.

**Junior High School.** There is but one junior high school. Shop work is given in this school. The building and equipment facilities will be discussed later in this section.

**Grade Schools.** The grade school work being divided into two groups, necessitates two classes of shop equipment. In the fifth and sixth grades special equipment is provided for elementary industrial arts instruction. In the seventh and eighth grades intermediate industrial arts work is given, which is known locally as mechanic arts, and special woodworking equipment is provided in each school where this is found. Other special equipment for printing is also found in six of the grade schools. Industrial arts courses in the fifth and sixth grades are offered in 34 centers. Industrial arts courses (mechanic arts) in the seventh and eighth grades are offered in 51 centers.

### Northeast High School

Northeast High School is located at Eighth Street and Lehigh Avenue. It was built in 1890 and has not been remodeled since, as far as the shops are concerned. A variety of practical instruction is made

possible by the fact that 9 fully equipped shops are to be found in the building. There are also 6 drawing rooms. The shops are a machine shop, a sheet metal and a chipping and filing shop, a pattern shop, a turning shop, a forge shop, a molding shop and three joinery shops. Industrial arts (mechanic arts) courses are given in this building during the day. In the evening, trade courses are offered for those employed in industry.

**Machine Shop.** The machine shop is located on the first floor of the building and is 51 feet 4 inches long and 40 feet 2 inches wide.

The tools and machines in this shop are in some cases good and in some cases in need of repair or replacement. It is very well equipped, as far as variety of machines is concerned. The lathes are nearly all of one make, thus limiting possibilities of familiarizing students with various types of operation. The floor space is fairly adequate and the equipment is arranged in a satisfactory manner. The shop is quite suitable for instruction to classes meeting the Smith-Hughes requirements.

**Sheet Metal and Chipping and Filing Shop.** The sheet metal and chipping and filing shop is a dual purpose shop. It is located on the first floor of the building and is 51 feet 4 inches long and 40 feet 2 inches wide.

The equipment of the shop for vise work is good. For sheet metal work, however, the type of benches is not very satisfactory. The shop is sufficient in size for its purpose and equipment is well arranged. No additional shop classes could be held in this room. If available, it would meet the requirements of Smith-Hughes instruction.

**Forge Shop.** The forge shop is located in the basement. It is 61 feet 6 inches long and 53 feet 8 inches wide. The equipment is in good condition and well arranged. The floor space is sufficient. This room is not in use all of the time and could be used for additional shop classes. At some times the room is vacant 22 periods per week.

**Molding Shop.** The molding shop is located in the basement. It is 58½ feet long and about 54 feet wide.*

The equipment in the shop is satisfactory for industrial arts classes. The floor space is adequate and the stationary equipment fairly well arranged. The room is cold, however, and has a brick floor. It is not a good place for teaching at certain seasons of the year.

The amount of time the shop is used varies. Sometimes it has not been used at all—at other times it has been in use slightly over one-half of the time.

* See Addenda.

**Patternmaking Shop.** This shop is located on the second floor of the building and is 40 feet 4 inches long and 23 feet 4 inches wide. The equipment is in good condition and is well arranged. The room is, however, in a very crowded condition. The shop is at present in use practically all of the time and is not available for additional classes. Classes receiving instruction meeting Smith-Hughes standards could be taught in this shop.

**Wood-turning Shop.** The wood-turning shop is located next to the pattern shop on the second floor. It is 40 feet 4 inches long and 23 feet 4 inches wide.

The machinery and tools are in fair condition. The machinery needs overhauling to be perfectly satisfactory. The floor space is fairly adequate but the store and tool room is very inconveniently located. The shop would be fairly satisfactory for instruction meeting Smith-Hughes standards.

**Joinery Shop (Rooms 216 and 217).** This joinery shop is located on the second floor. It is 51 feet 6 inches long and 40 feet 4 inches wide.

The equipment is in good condition and is well arranged. The floor space is sufficient so that the instruction of a very large class is made possible with two teachers. With the addition of a few machines this shop could be used for cabinet-making trade classes meeting Smith-Hughes standards.

**Joinery Shop (Room 318).** This shop is located on the third floor and is 40 feet 3 inches long and 24 feet wide.

The general equipment is in good condition and arranged well. The installation of suitable machinery would be necessary if it were desired to use this shop for classes of Smith-Hughes grade.

**Joinery Shop (Room 319).** This shop is on the third floor and adjoins the joinery shop (Room 318). It is 40 feet 3 inches long and 27 feet 6 inches wide.

The tool room is very inconvenient for the use of this shop. The equipment is in the same general condition as that of Room 318.

**Drawing Rooms.** There are six drawing rooms in this building. All of them are located on the third floor. A blueprint room is also provided as well as an office room for the drawing department. The rooms are used for both free-hand and mechanical drawing. Each room is well equipped with good tables and cabinets. The individual student equipment is also well provided and in good condition. All of the rooms are very commodious and show considerable care in arranging the equipment.

The number of drawing classes could be increased only by the addition of more drawing table space and increasing the instruction force.

## South Philadelphia High School for Boys

This building was completed in 1907 and the school was organized the same year. It is located in a residential, commercial and industrial community.

The school contains a variety of shop equipment, there being seven different types of shops in the building and five drawing rooms. In all, there are eight shops as follows: 1 molding shop, 1 electrical shop, 1 forge shop, 1 machine shop, 1 sheet metal and chipping and filing shop, 1 joinery shop and 2 pattern shops.

The equipment is utilized during the day, almost entirely, for industrial arts (mechanic arts) courses. The electrical shop is now being utilized for a vocational course in electrical wiring. At night some of the shops and drawing rooms are utilized for vocational evening courses.

**Machine Shop.** This shop is 57 feet 9 inches long and 40 feet wide. It is on the first floor of the building. The equipment is of good type and in good condition. It is well arranged. The shop is not crowded. There is plenty of good space for the equipment now in the shop. The light is good. The room is well adapted to vocational work.

**Sheet Metal and Chipping and Filing Shop.** This shop is located on the first floor. It is 57 feet 9 inches long and 40 feet wide.

In general the equipment is very good and well arranged. The shop is not used for evening classes. The shop could be used for additional classes both day and evening. Courses in sheet-metal work meeting the standard of Smith-Hughes requirements could be given instruction in this shop as it now is equipped.

**Forge Shop.** The forge shop is located in the basement. It is a room rectangular in shape, 58 feet long and 53 feet 5 inches wide. The equipment is in good condition and well arranged. There is ample space for all of the equipment so that classes may be handled without congestion. The room is not used for evening classes. Classes taking courses meeting the requirements of the Smith-Hughes law could be given instruction without additional equipment.

**Molding and Electrical Shop.** This room is located in the basement. It is 57 feet 6 inches long and 53 feet 5 inches wide. It is a dual purpose shop. The equipment for molding is in good condition.

For the electrical work the equipment is old and not of the best type. It is totally inadequate from the standpoint of vocational education and lacking from a practical arts standpoint as well. The equipment for both molding and electrical work is well arranged. There is ample space for the work of both shops; but if a partition were erected

between the two shops, the availability of the rooms would be increased by 50 per cent, with the added advantage that each shop would be a unit in itself.

The shops are used during the day for the electrical work 12 periods per week and for the molding 8 periods. Both shops ought to be available a total of 60 periods and are, therefore, utilized but one-third of the time. In the evening the electrical shop is in use 3 nights each week for 2 hours. The term is 24 weeks in length.

**Patternmaking Shop (Room 210).** This shop is located on the second floor. It is 57 feet 9 inches long and 40 feet wide. The equipment is good and well arranged. There is ample space, good light and, taking everything into consideration, it is very well adapted to its purpose. The shop is used during the day for 26 periods per week out of 30. In the evenings it is not in use at all. Vocational patternmaking could be taught in this shop in its present condition.

**Patternmaking Shop (Room 310).** This pattern shop is on the third floor. It is 57 feet 9 inches long and 40 feet wide and regular in shape. The equipment is of good type for instruction in patternmaking. It is in good condition and well arranged for effective instruction. The floor space is ample and the shop is well lighted.

The shop is used for classes during the day for 28 periods per week. Of these 28 periods but 18 are shop classes; the other 10 are non-vocational classes which are given instruction in the assembly space of the shop instead of in a regular classroom. Lack of available classroom space was given as the reason for the non-vocational classes scheduled in this room.

For evening school, the shop is used 3 nights per week for 2 hours each night and the term extends over 72 nights. The shop as it now stands could be utilized for trade classes in patternmaking meeting the Smith-Hughes requirements.

**Joinery Shop.** The joinery shop is on the second floor and is 57 feet 9 inches long and 40 feet wide.

There is ample space in this shop. The equipment is of a good type, arranged in a satisfactory manner, and in good condition. The room is well lighted. The shop is utilized during the day for 30 periods per week; 26 of the periods are used for shop classes and 4 by non-vocational class recitation.

**Drawing Rooms.** There are 5 drawing rooms located on the third floor. The rooms are used during the day for instruction in free-hand, mechanical, and architectural drawing. In the evening some of them are in use for instruction in mechanical, architectural and sheet-metal

drafting. During the day, for the 5 drawing rooms there is but one vacant period per week. At night 3 of the drawing rooms are used for 3 nights per week, 2 hours each night, with a term extending over 24 weeks. The equipment as a whole is in good condition and arranged in good order. It is adaptable to the work of trade courses in mechanical or architectural drawing which meet the Smith-Hughes standard.

**Drawing Room 315.** The room is 50 feet long and 40 feet wide. There is ample space in this room and the equipment is well arranged. The natural lighting is poor, necessitating the use of artificial light most of the time.

**Drawing Room 316.** This room is 50 feet long and 38 feet 6 inches wide. This room is ample in size for the equipment. The natural lighting is so poor that artificial light must be used most of the time. The room is in use the entire school-day for mechanical drawing but it is not used for night school.

**Drawing Room 319.** This room is 35 feet 10 inches long and 36 feet wide. This drawing room is used for mechanical drawing every period of the day. It is also used for mechanical drawing in the evening school.

**Drawing Room 320.** This drawing room is 42 feet long and 24 feet 6 inches wide.

This room is used during the day for 29 periods per week. Instruction in mechanical and free-hand drawing is given. In the evening instruction in architectural drawing is given three nights per week during the night school session.

**Drawing Room 324.** This room is 53 feet 6 inches long and 36 feet 5 inches wide. The drawing tables in this room are rather crowded but are arranged in as good a manner as possible under the circumstances. On account of the capacity of the room for classes of larger size two teachers are always in charge.

During the day the room is occupied all of the school periods by classes in architectural, mechanical, and free-hand drawing. The room is used 3 evenings each week during night school term for mechanical drawing classes.

## Germantown High School

The Germantown High School is located at Germantown Avenue and High Street. It was built in 1915. The community which the school serves is chiefly residential, although a number of textile mills are located in this section. There are no organized interests which would affect this school other than those usually found in a residential community.

The shops of this school are 6 in number and include a joinery shop, a turning shop, a pattern shop, a chipping and filing shop, a machine shop, and a forge shop. There are 5 drawing rooms in all, 3 of which are used for both mechanical and representative drawing for boys. In the basement there is a good-sized storage room for lumber. On the fourth floor is a blueprint room. On the third floor there are 2 storage rooms which are used by the mechanical department.

The shops and drawing rooms are all in use during the day-school session for instruction in industrial arts (mechanic arts). No utilization of the shops or drawing rooms is made, either in the daytime or in the evening, to give instruction with a trade aim.

Each shop and drawing room will be discussed separately.

**Machine Shop.** The machine shop is located on the first floor. Its greatest length is 63 feet 6 inches and its width is 37 feet. The machinery and tools of this shop are in good condition. The machine equipment is elaborate and well arranged. The equipment is but 4 years old. The shop is probably the best for this purpose in the city schools. The floor space is sufficient to meet the demands of the present equipment. With the addition of several turret tables, this shop would be admirably adapted to day instruction in the machinist trade on a Smith-Hughes basis.

**Elementary Machine Shop.** The elementary machine shop (chipping and filing) is located in the basement. It is 35 feet 8 inches long and 26 feet 8 inches wide. The equipment is in good condition and well arranged. The floor space is adequate for the work being done. This shop could be used for elementary machine shop work in classes of Smith-Hughes standard.

**Forge Shop.** The forge shop is in the basement and is approximately 55 feet long and 36 feet wide. The equipment is in very good condition and is well arranged. This shop is adaptable to industrial classes in blacksmithing and forge practice.

**Patternmaking Shop.** This shop is located on the second floor of the building and is 37 feet square. The equipment is in good condition and well arranged. The quarters are rather cramped, however, and there is not sufficient space for storage of work which is in the process of construction. If provision were made to teach molding as related to the patternmaking trade, this shop is adaptable to trade instruction in patternmaking.

**Turning Room.** The turning room is located on the second floor. It is 38 feet 10 inches long and 25 feet wide. The equipment of this shop is modern and in good condition.

**Joinery Shop.** The joinery shop is in the basement. It is about 35 feet long and 27 feet wide.

**Drawing Rooms.** All three of the boys' drawing rooms are located on the third floor.

The equipment in these rooms is of the traditional type and of the best obtainable. It is ample in all respects for industrial arts (mechanic arts) instruction, and would be adapted to work on a vocational basis.

## Central High School

The shops of the Central High School are located at two centers, i. e., Seventeenth and Wood Streets Annex and Broad and Green Streets Annex. The shops of these two buildings will be discussed separately.

### Central High—Seventeenth and Wood Streets Annex

The building was erected in 1826 and is located at Seventeenth and Wood Streets, about five and one-half blocks from the main building of the Central High School at Broad and Green Streets. It was remodeled in 1890 and 1910. The Boys' Trade School was moved in 1917 from Twelfth and Locust Streets to this building which was so occupied until 1919 when a merger was made with the Central High School, and the Boys' Trade School lost its identity. This combination with Central High did not in any way affect the building or equipment.

This annex is located in an industrial, commercial, and residential section. It is used, during the day, entirely for industrial courses having a vocational aim. The equipment is also used in the evening for trade courses. Each shop contained in the building will be discussed separately.

**Electrical Laboratory.** The electrical laboratory is located on the third floor of the building. The room is 38 feet 9 inches long and 23 feet wide. Some of the equipment is of rather old type. There is a lack of modern electrical machines, such as variable speed induction motors, etc. The floor space is inadequate to permit ease in handling classes of normal size. If the laboratory were available, it could be used without change, alteration, or repair for instruction meeting the standard of Smith-Hughes courses.

**Electrical Wiring Shop.** This shop is on the first floor of the building. It is in a room 60 feet 6 inches long and 30 feet 2 inches wide. Due to the crowded conditions in this shop, it would be impossible to give instruction to any other industrial classes in addition to the ones already being taught.

**Carpentry Shop.** This shop is located on the second floor of the building. The equipment of this shop is for the most part old and, therefore, not in good condition. There are not sufficient hand tools and there is a distinct lack of machinery for the class of work which is being attempted. The addition of a vertical molder and lathe would add to the efficiency of work done.*

The floor space for the bench work under the present arrangement is not adequate.

**Pattern and Cabinet Shop.** This shop, 40 feet long and 30 feet wide, is on the second floor. The lathes and circular saw in this shop are very old and not in conformity with modern standards for shop equipment. There is a distinct need for additional machinery, such as a jointer, a variety saw, etc. The belting is in poor condition and is not properly guarded in some instances. The band saw stands idle for a considerable period due to difficulties in having the broken saws brazed. The tools are kept in open cabinets and are at all times exposed. Instruction meeting the standards of Smith-Hughes could be given to small classes in this shop provided the deficiencies indicated above are remedied.

**Machine Shop.** The machine shop is on the first floor. The main room is 49 feet 6 inches long and 24 feet 9 inches wide, with a rectangular offset, on the northwest side, which adds to the shop a floor space 19 feet long and 9 feet 6 inches wide. A tool room 10 feet 3 inches long and 7 feet 9 inches wide adjoins the shop and is equipped with a bench and racks. This shop, with additions and necessary repair to machines, could be used for instruction meeting the standard of Smith-Hughes courses.

**Elementary Machine Shop.** This shop, located on the first floor, is 33 feet 6 inches long by 29 feet wide.

The equipment in this shop is satisfactory for the class of work usually done in an elementary machine shop. The lathes are rather old but can be used effectively for this type of work. This shop is not so crowded (for this building) as some of the other shops already discussed.

With the present classes already scheduled for work, it will not be possible to hold additional industrial classes in this shop during the day. The equipment is such that without change, alteration or repair it could be used for instruction meeting the standard of Smith-Hughes courses.

**Mechanical Drawing Room.** The mechanical drawing room is located on the third floor and is 40 feet 6 inches long and 30 feet 9 inches

* See Addenda.

wide exclusive of the blueprint room which adjoins it and is 9 feet 2 inches long and 4 feet 7 inches wide.

The drawing tables are in poor condition and are placed so close together as to make necessary movement about the room difficult. The models used for the drawing work cannot all be properly cared for because of lack of storage space. Wood triangles of a poor quality are furnished the students. The room is in use practically all of the time and could not be used for industrial classes other than those already being taught.

The room and equipment could be used to give instruction in mechanical drawing as a related subject on a Smith-Hughes basis in its present condition. Changes in equipment as indicated would put the room in condition to handle trade classes of twenty in mechanical drafting on a Smith-Hughes basis.

**Architectural Drawing Room.** The architectural drawing room is on the third floor and is 37 feet long and 30 feet 6 inches wide.

The drawing tables are in a shaky condition and during certain periods are inadequate in number. The fact that more than one student works at one bench and that the benches are not firm, makes work difficult for the students at times. The tools and small equipment are fairly good. The drawing cabinets might be improved by the addition of doors to make them dust proof. The floor space is fairly adequate for the number of pupils. A less crowded condition of the room would, however, add to the efficiency of instruction. This room is busy all of the week except one period and could not be used for any expansion of the industrial work given in the school.*

This drawing room could be used for instruction of classes in related drawing meeting Smith-Hughes standards. The room is not, however, in as good condition as a drawing room should be for this purpose.

### Central High—Broad and Green Streets Annex

This building is located at Broad and Green Streets, directly across Broad Street from the main building of the Central High School. It was built in 1856. In 1914 certain partitions were erected and the floors strengthened to take care of the added weight of the machines. The school is located in a section comprising a variety of interests composed of commercial establishments, industries, and residences. The equipment of this building is used for the industrial arts (mechanic arts) courses of Central High and some of the students from the industrial courses at the Seventeenth and Wood Streets Annex. In the evening some of the equipment is used for trade courses.

* See Addenda.

**Machine Shop.** The machine shop, 67 feet long and 36 feet 6 inches wide, is on the first floor. The equipment of this shop is in good condition and well arranged. The tool room is satisfactory for the purpose. The floor space is adequate. This shop might be used for instruction of Smith-Hughes grade in its present condition. With the present schedule of classes it is available for additional industrial classes.

**Elementary Machine Shop.** This shop, 37 feet 6 inches long and 21 feet 9 inches wide, is on the first floor.

**Forge and Sheet Metal Shop.** The shop is on the ground floor of the building and is only of slightly lower level than the first floor rooms. It is 88 feet 3 inches long and 33 feet 10 inches wide. The equipment of this shop is in good condition and is well arranged for effective use. There is sufficient floor space to take care of the present classes. The shop could well be used without changes, alteration or repair for instruction meeting the standard of Smith-Hughes courses.

**Patternmaking Shop (Room 23).** This shop is on the second floor of the building. It is 42 feet 6 inches long and 34 feet 9 inches wide. The shop is unused during 8 periods of the week and could be scheduled for additional shop classes. Classes meeting the standard of Smith-Hughes courses could be taught in this shop with the present equipment.

**Joinery Shop (Room 23).** This shop, 35 feet 4 inches long and 21 feet 9 inches wide, is on the second floor. The tools in this room are in good condition. The benches are in fair condition but are rather crowded. The lumber storage is on the floor above. The shop is vacant 14 periods per week and could be used for additional shop classes. It is not adaptable, however, to trade courses meeting the requirement of the Smith-Hughes law.

**Joinery and Wood-turning Shop.** This shop, 49 feet long and 37 feet wide, is on the second floor. The benches, machines, etc., are in good condition, and are well arranged. The tools are satisfactory with the exception of the jack planes. The shop is occupied with classes during all school periods except four and could be used for additional shop classes of Smith-Hughes type.

**Electrical Laboratory.** The electrical laboratory, 35 feet long and 21 feet wide, is on the first floor. The equipment of this room is in good condition and well arranged. For ordinary-sized classes the room is not too crowded for efficient work. The laboratory is adaptable to courses in electrical testing meeting Smith-Hughes requirements.

**Drawing Rooms.** There are 3 drawing rooms in this building located on the third floor. In addition to these another room is used

part-time for drawings and part-time for science. Both free-hand and mechanical drawing are taught in the rooms. The 4 rooms mentioned are used during all but 7 periods per week, and are, therefore, available for but little additional work.

### Frankford High School

Frankford High School is located at the corner of Oakland and Harrison Streets. It was built in 1914 and is situated in a section of the city containing a variety of interests including residential, commercial, agricultural, and industrial.

The building contains 7 shops and 4 drawing rooms. The drawing rooms are used for instruction in both free-hand and mechanical drawing. The shops are as follows: a cabinetmaking shop, a woodturning shop, a machine shop, a forge shop, a molding, tinsmithing and chipping and filing shop, a joinery shop. There are also a blueprint room which is used for drawing material storage and a lumber storage room. The shops are used during the day for industrial arts (mechanic arts) courses. In the evening some of the equipment is utilized for trade instruction.

**Joinery Shop.** The joinery shop is located in the basement of the building. It is 44 feet long and 24 feet wide. The equipment is in good condition and is well arranged under the present crowded condition of the shop. A lumber storage room in the basement is utilized by this shop. This storage room is irregular in shape. It is 31 feet long with a maximum width of 11 feet and a minimum of 5 feet.

This shop is in use practically all of the time and is not available for additional classes. Small classes could be given instruction, meeting the standard of Smith-Hughes courses, by installing additional machines and removing some of the woodworking benches.

**Turning Shop.** The wood-turning shop is located on the second floor of the building. It is 31 feet 9 inches long and 24 feet wide.

This shop is altogether in good condition, as are the various items of equipment contained in it. The machines are arranged so as to utilize the floor space to the best possible advantage. The shop is idle two-thirds of the time during the school week and is available for additional classes.

**Pattern and Cabinet Shop.** The patternmaking and cabinetmaking shop is located on the second floor and is 50 feet 6 inches long. For nearly half the length of the room it is 32 feet wide and for the remainder is 21 feet 9 inches wide. The tools and other equipment of this shop are in good condition. There is sufficient space, and the equipment is well arranged for the purpose for which it is intended. A mortising machine and a jointer would increase the possibilities for work. This

room is occupied by classes from mechanic arts courses 27 out of a possible 30 periods per week and is therefore not available for any considerable addition of classes. This shop in its present condition could be used for instruction of Smith-Hughes standard.

**Machine Shop.** The machine shop is located on the first floor of the building. It is a room 49 feet 6 inches long and 33 feet wide. No special provision is made for lecture or group instruction in this shop.

The equipment of this shop is, generally speaking, in good condition although several of the machines are in need of repair. The addition of a milling machine, a planer and a universal grinder would add materially to the variety of work which could be done, but these are not essential to instruction of the standard usually set for mechanic arts courses. There is sufficient floor space for considerably enlarging the equipment. The present equipment is well arranged. This shop is vacant 14 periods per week, or nearly 50 per cent of the school-week. With the addition of several new machines and the necessary additional small equipment, this shop could be used for courses organized on a Smith-Hughes basis.

**Forge Shop.** This shop is located in the basement. The shop proper is 55 feet 6 inches long and 32 feet wide. There is also an office, a blower room, and a coal bin at one end of the room. The equipment of this shop is in good condition throughout. It is slightly crowded but well arranged for instructional purposes. The shop is vacant 21 periods per week and is thus available for additional shop classes during about 70 per cent of the time. It is satisfactory for classes to which instruction meeting Smith-Hughes standards is given.

**Molding, Sheet Metal, Chipping and Filing Shop.** The shop is located in the basement. It is 39 feet long and 24 feet wide. The shop is used for three shop subjects.

There is a good equipment in this shop for the instruction which is being given. There is only limited floor space for the larger equipment and for this reason its arrangement could be improved upon if more room were available. This room is used nearly constantly throughout the school-week and is not available for additional classes in the shop subjects. For small classes this room could be used for instruction meeting the standard of Smith-Hughes courses.

**Drawing Rooms.** There are 5 drawing rooms which are used for both free-hand and mechanical drawing as occasion demands. Two of the rooms are on the second floor and 3 on the third. On the fourth floor there is a supply room for the drawing, and a blueprint room containing a blueprint machine. The movable equipment of each room is

utilized in whichever room it is needed. For this reason the equipment which will be given should be considered as a whole for the entire school rather than for the particular room where it happens to occur at the time the inventory was made. Taken as a whole, the equipment in this building is very good and of modern type. Blackboards are provided for demonstration and illustration in instruction. The floor space is well utilized and the tables are arranged in a most satisfactory manner. Each student furnishes his own instruments for mechanical drawing.

There are a total of 34 vacant periods for the 5 drawing rooms in this building. These vacancies would indicate an over supply of one complete room for the present enrollment and schedule of the school. Any of the rooms could be adapted to either trade drafting or related subject drafting for instruction meeting the standards of Smith-Hughes instruction.

**Drawing Rooms 202 and 204.** Room 202 is vacant 16 periods per week and Room 204 is busy all of the time.

**Drawing Room 307.** At present the room is occupied all but 4 periods per week and for free-hand drawing only. It is, however, adaptable for mechanical drawing.

**Drawing Room 308.** The room is occupied all but 2 periods per week.

**Drawing Room 309.** This room is located on the third floor and is 27 feet 9 inches long and 23 feet wide. It contains 15 double drawing desks with chairs, 1 drawing board cabinet, 1 equipment supply case, 1 wash sink, and a teacher's desk and chair. Under the current schedule, this room is unoccupied 12 periods per week.

### West Philadelphia High School for Boys

The West Philadelphia High School for Boys is located at Forty-eighth and Walnut Streets. It was built in 1911 and has not been added to or remodeled since that time. The community in which the school is located is very decidedly residential. There are few factories of any kind. The men work in various parts of the city; hence the school serves a variety of individual interests. Industrial arts (mechanic arts) courses have been given in this building from the time it was first used. Several trade courses are given here in the daytime and in the evening some of the equipment is used for trade instruction. The building contains 8 shops and 5 drawing rooms. There are in use shops in joinery, wood-turning, patternmaking, wood-carving, machine practice, sheet metal work, forging, and molding.

**Machine Shop.** The machine shop is on the first floor of the building and is 58 feet long and 31 feet 6 inches wide. The tools and machines of the shop are in good condition and well arranged. There is sufficient floor space to make possible very efficient handling of classes. This shop is vacant 4 periods per week and could be used during this time for additional shop classes. Instruction meeting the standard of Smith-Hughes courses could be given in this shop as it now stands.

**Forge Shop.** The forge shop is located on the third floor of the building. It is 58 feet long and 45 feet wide. Space has been provided for class assembly seats but it is not being utilized. The forges and auxiliary equipment in this shop are in good condition and well arranged. The floor space is adequate for the present equipment, and provision has been made for adding four additional forges and anvils should occasion require. The shop is not available, with the present schedule, for additional classes. Classes receiving trade instruction of Smith-Hughes grade could be taught in this shop if it were available for that purpose.

**Sheet Metal Shop.** This room is located in the basement. No special space is provided for assembly. For sheet metal work the equipment provided is satisfactory and in good condition. There is ample floor space. There is no provision for storage in connection with the shop and another room in the basement is used for this purpose. Most of the immediately needed stock is stored in the drawers of the benches. For 50 per cent of the time this shop is not in use and is therefore available for additional classes. It could be used for classes receiving trade instruction in sheet metal work.

**Molding and Elementary Machine Shop.** This room is located in the basement and is 58 feet 3 inches long and 31 feet 9 inches wide. Approximately one-half of it is used for the molding work and the other half is given over to elementary machine work. There is no partition between the two shops. No special provision is made in this shop for group instruction. The molding equipment in this room is in good condition and is well arranged. The floor space is adequate. The shop is used one-half of each year for day classes. It would be satisfactory for trade classes in foundry work.

**Elementary Machine Shop.** One-half of the room just described for the molding shop is taken up by the elementary machine shop. The equipment of the shop is in good condition and well arranged. This room is not available for additional chipping and filing classes.

**Patternmaking Shop.** The pattern shop is located on the fourth floor and is 56 feet 9 inches long and 22 feet 6 inches wide. There is an

assembly space provided with seats and a demonstration bench. The equipment, as a whole, is in good condition. The floor space is adequate and is well utilized. The machines, benches, etc., are well arranged for efficient instruction. There is no store room space in this shop. The shop with the present schedule could not be used for any additional day classes. If available, it would be satisfactory for giving trade instruction of Smith-Hughes grade.

**Wood-turning Shop.** This shop is located on the first floor. It is 28 feet long and 22 feet 6 inches wide. The tools and machines are in good condition. The floor space and storage facilities are inadequate. The lathes are very crowded and wood for the turning projects is stored in a clothes cabinet. The room was originally intended for regular classroom work and very little change has been made to meet the new conditions. The shop is in use only half of the school year and is available for additional classes.

**Joinery Shop.** The joinery shop is located on the second floor. It is 58 feet long and 31 feet 9 inches wide. An assembly space is provided with seats and a bench for lecture and demonstration. Adjoining the shop are three small rooms. One is used as a storage room, one as an office and one as a tool room. The tools, machines, and benches of this shop are in good condition. The machines, however, with the exception of the jointer, are not properly guarded. The benches are too close together to permit ease of handling classes. The tool room and machines are well arranged and in good order. The room is occupied the greater portion of the school week and no more classes could be scheduled, although larger classes might be handled. Classes in trade cabinet-making could be arranged in this shop in its present condition.

**Wood Carving Shop.** The wood carving shop is located in the basement. It is 32 feet long and 25 feet wide. The benches which are used for wood carving are in good condition. The tools, however, are only in fair shape. The floor space and tool room are quite adequate. The band saw is placed too near the corner bench, with the result that the student who works with it is interfered with by students who pass him. The shop is occupied only one-half the time. One-half of each term it is not in use at all. Additional classes could therefore be handled in this shop.

**Drawing Rooms.** The rooms are used for free-hand, architectural, and mechanical drawing. The 5 rooms have 10 vacant periods per week. Thus a few additional classes could be handled with the present equipment. Any or all of the rooms could be used in their present condition for classes in mechanical or architectural drawing, either as a

related or trade subject, in courses meeting the standard of Smith-Hughes work.

### Holmes Junior High School

The Holmes Junior High School is located at the northeast corner of Fifty-fifth and Chestnut Streets. It was built in 1916. The school is located in a residential section of the city. The male children of the seventh, eighth, and ninth grades who attend this school receive shop work and mechanical drawing in this building. There is a wood shop, a combination wood and electrical shop, and two drawing rooms. A distinct lack of shop facilities is seen in this building. Due to this deficiency it is impossible to give the pupils of the school much variety of shop experience.

**Wood and Electrical Shop.** This shop is located in the basement. It is 64 feet 4 inches long and 22 feet 7 inches wide. The equipment of this shop is good but inadequate in extent. The condition of the room is rather crowded.

**Wood Shop.** This shop is located in the basement. It is 43 feet 5 inches long and 22 feet 3 inches wide. The equipment in this room is good as far as it goes. The same condition exists in this shop, however, that is found in the one previously discussed. There is a distinct lack of the necessary machinery to make possible the kind of work which is usually done in a junior high school of the best type.

**Drawing Rooms.** There are two drawing rooms located on the second floor of the building. The rooms are satisfactory and contain the usual drawing room equipment.

## EVENING CLASSES IN INDUSTRIAL EDUCATION

Trade classes are in operation in 5 evening high schools. These courses are of three types: trade extension for workers employed in the trade during the working-day, trade preparatory, for those preparing to enter the trade, and special courses which do not conform strictly to either of the others.

Twenty-seven trade preparatory classes and 35 extension classes are being conducted in these schools for the current school year (1920–21). One special class in a high school and one manual arts class for colored pupils in an elementary building make a total of 64 classes.

The evening school year extends from September to March and covers 24 weeks. Each school is open Monday, Tuesday, and Wednesday of each week. In one case a class is held on Thursday night in order to use equipment not available on regular nights.

Trade courses are given under the general administration governing evening high schools and are subject to the following regulations:

Entrance Requirements. To be eligible for admission to an evening high school a student must have completed the elementary school course (day or evening) or its equivalent. While this is a general requirement for all evening high schools it is not strictly adhered to in industrial courses.

In registering students for evening trades courses, preference is given to those who are employed during the day at the trade in which they wish instruction. Applicants for the course in electrical construction must qualify in the fundamentals of arithmetic, percentage and mensuration.

No one may be admitted to a public evening school who attends a day school.

A deposit of one dollar ($1.00) is required of all students. This deposit is returned at the close of the school-year to those who have attended 70 per cent of the sessions for which they were enrolled. A non-refundable deposit is required in Electricity, Woodwork, Metal Work, and Chemistry.

Discontinuance of Courses. Any of the courses offered may be omitted or discontinued in a school if the registration for the course is too small. Some courses for which the demand is small may be given, if conditions warrant, but only in the school most conveniently located to those making application.

Attendance. Regular attendance is required. Students must present satisfactory explanation of absence. A student must attend at least 70 per cent of the hours of any course in order to receive credit for the work.

Credits. A one-hour subject successfully completed entitles the student to a maximum of 3 credits for each term, or 6 credits for the year; a two-hour subject to a maximum of 6 credits for each term, or 12 credits for the year.

Certificates. At the close of the year the student is given a card record certifying by subjects as to the number of credits earned. The completion of a definite course of three or more years in any subject or department entitles the student to a certificate of proficiency in that subject.

Diplomas. Sixty credits, representing at least 5 years' work, entitle the student to a diploma; provided, however, that in evening high schools at least 12 credits have been taken in English, and at least 29 credits in one or more of the following: science, foreign language, high school mathematics. In trades courses, at least 12 credits must be taken in mathematics and in drawing, and at least 24 credits in the theory and practice of the trade work selected.

Credit may be allowed for properly certified work in day high school trades courses; such allowance for previous work, however, shall in no case exceed three-fifths of the total requirements. Credit not to exceed one-fifth of the total requirements, may also be allowed for properly certified work in the trade.

Supplies. Drawing boards, T-squares and shop tools and materials are furnished by the schools. Students furnish necessary textbooks, drawing instruments, pencils, note books and other needed articles.

Evening industrial instruction is under the supervision of the Director of Practical Arts and Vocational Education of the day organization. It is under the immediate guidance of an evening supervisor, who devotes his entire evening school time to this work, but who in the day organization is head of the industrial department of the Central High School.

Sixty per cent of the evening industrial teachers are teachers in the day schools of the city. Forty per cent are recruited from industry and elsewhere.

An interesting experiment is being made in the Durham Evening Elementary School, which is restricted to colored pupils, in opening the wood shop for one evening of the week to a group of men who for two other evenings are studying elementary academic subjects. The shop instruction is not sufficiently extensive to have a true vocational aim, but the interest which the men have shown in this opportunity to handle wood tools and to construct simple useful objects has justified opening the shop to them. The instruction is pre-vocational, of much the same type as is given all-day elementary school boys in the seventh and eighth grades. There are 2 groups, of about 18 men each, who take this shop work on Monday and Wednesday evenings, respectively.

**Recruiting Evening School Pupils.—Appeal of Trade Courses.** The attached table indicates the number of persons attracted by the courses offered in the various public evening school shops.

Each evening high school puts out a printed bulletin announcing courses to be offered. No funds are available for special advertising, but individual efforts on the part of the teachers and the Evening Supervisor in charge of trade classes, are being made to give notice of these opportunities in plants, and elsewhere. Classes for apprentices may be provided through organizations. An example of this is the Plumbing Classes at Central High School which are conducted in active coöperation with the Master Plumbers' Association.

Workers from the trades may upon application organize a class and the schools will provide quarters, and instruction in shop or related work, or in any phase of the trade for which the workers feel a need.

ENROLLMENT IN EVENING INDUSTRIAL COURSES

This was compiled from the annual reports of the Philadelphia Schools

| Study | 1912–13 | 1913–14 | 1914–15 | 1915–16 | 1916–17 | 1917–18 | 1918–19 | 1919–20 |
|---|---|---|---|---|---|---|---|---|
| Electrical Construction | 315 | 383 | 353 | 460 | 305 | 324 | 194 | * |
| Brick Laying | 31 | 17 | ... | ... | ... | ... | ... | ... |
| Printing | 82 | 81 | 75 | 82 | 69 | 42 | ... | ... |
| Mathematics | 76 | 139 | 146 | 161 | 153 | 127 | 94 | ... |
| Patternmaking | 60 | 64 | 72 | 97 | 60 | 26 | ... | † |
| Drawing | 255 | ... | ... | ... | ... | ... | ... | ... |
| Architectural Drawing | ... | 116 | 88 | 130 | 92 | 158 | 58 | ... |
| Mechanical Drawing | ... | 169 | 148 | 164 | 161 | 159 | 127 | ... |
| Carpentry | 100 | 131 | 131 | 116 | 70 | 63 | 32 | † |
| Sign Painting | 64 | 69 | 79 | 88 | 55 | 24 | 13 | ... |
| Plumbing | 354 | 367 | 460 | 516 | 355 | 249 | 106 | 266 |
| Sheet Metal | 147 | 159 | 113 | 129 | 125 | 78 | 39 | 79 |
| Machine Construction | ... | ... | ... | 39 | 80 | 111 | 98 | 250 |
| Cabinetmaking | ... | ... | ... | ... | ... | 41 | 33 | † |
| Blueprint Reading | ... | ... | ... | ... | ... | 20 | 131 | ... |
| Typothetæ | ... | ... | ... | ... | ... | ... | ... | 77 |
| Woodworking | ... | ... | ... | ... | ... | ... | ... | †166 |

* Included in Science

† Includes Carpentry, Cabinet and Patternmaking.

Printing was dropped at the end of the 1917–18 term and sign painting was discontinued at the end of the 1918–19 term. The column headed 1919–20 seems to show a falling off in certain subjects. This is due to a difference in the method of tabulating the material in the annual report of the school district, rather than that there has been such a large falling off in classes.

The subjects noted in previous years under Drawing, Architectural Drawing, Mechanical Drawing, and Blueprint Reading are reported as Drawing in the 1919–20 report. This is due to the fact that evening industrial classes in these subjects are now part of the high school organization, and are not reported separately as industrial arts or industrial education as formerly.

Since the figures are not usable for comparison they are omitted.

## Central Evening High School

Two buildings which serve as annexes are used by the Central Evening High School for the classes in trade and industrial education. The annex at Broad and Green Streets was until recently the only one devoted to shop instruction as part of the Central High School. Early in 1919 the Boys' Trade School at Seventeenth and Wood Streets became an annex of this school, and at the present time both of these separately equipped shop buildings are used for evening classes.

Instruction in this and other high schools is being offered at the present time in industrial subjects, which together with information dealing with enrollment, attendance and types of courses are noted in the tables shown on pages 233, 234 and 235.

**Pupil Information.** A group of 1024 evening school pupils has been studied with reference to personal information, school record both day and evening, and facts concerning their employment.

The group was selected at random throughout the evening high schools, each school being represented with a variety of subjects and pupils considered without reference to their intelligence, proficiency, and social status. In this respect the group is representative in general of the evening industrial classes in the Philadelphia public evening schools.

CENTRAL EVENING HIGH SCHOOL

| Subject | Number of Classes | Enrollment | | Average Attendance | | Per Cent Attendance for Department | Type of Classes | |
|---|---|---|---|---|---|---|---|---|
| | | Classes | Department | Classes | Department | | Extension | Preparatory |
| Electrical Construction, Third Year | 1 | 25 | .. | 15 | .. | .. | 1 | .. |
| Electrical Construction, Second Year | 2 | 66 | .. | 44 | .. | .. | 1 | 1 |
| Electrical Construction, First Year | 4 | 155 | .. | 96 | .. | .. | 2 | 2 |
| Electrical Wiring—Advanced | 1 | 28 | .. | 18 | .. | .. | .. | 1 (a) |
| Electrical Wiring | 1 | 47 | 321 | 28 | 201 | 62.6 | .. | 1 |
| Freehand and Architectural Drawing | 1 | 30 | .. | 18 | .. | .. | 1 | (b) |
| Architectural and Mechanical Drawing | 1 | 32 | .. | 20 | .. | .. | 1 | .. |
| Mechanical Drawing | 1 | 44 | .. | 19 | .. | .. | 1 | .. |
| Mechanical Drawing | 1 | 33 | .. | 19 | .. | .. | 1 | .. |
| Mechanical Drawing and Shop Mathematics | 1 | 30 | 169 | 17 | 93 | 55.0 | Special (c) | |
| Carpentry | 1 | 45 | .. | 35 | .. | .. | .. | 1 |
| Cabinetmaking and Patternmaking | 1 | 25 | 70 | 15 | 50 | 71.4 | .. | 1 |
| Machine Construction | 1 | 28 | .. | 17 | .. | .. | .. | 1 |
| Machine Construction | 1 | 50 | 78 | 26 | 43 | 55.1 | .. | 1 |
| Sheet Metal | 1 | 23 | .. | 16 | .. | .. | 1 | (d) |
| Sheet Metal | 1 | 41 | 64 | 14 | 30 | 46.9 | 1 | .. |
| Plumbing, Fourth Year | 1 | 25 | .. | 19 | .. | .. | 1 | (e) |
| Plumbing, Third Year | 1 | 28 | .. | 16 | .. | .. | 1 | .. |
| Plumbing, Second Year | 1 | 31 | .. | 23 | .. | .. | 1 | .. |
| Plumbing, First Year | 3 | 141 | 225 | 70 | 128 | 56.9 | 3 | .. |
| Total Industrial and Drawing | .. | .. | 927 | .. | 545 | 58.7 | .. | .. |
| Total for school (male only) | .. | .. | 1,642 | .. | .. | 51.0 | .. | .. |

Enrollment in industrial and drawing classes was 927, or 56.5 per cent of the total. These classes had an average attendance of 545 per evening, or 58.7 per cent, as compared with the total per cent attendance of 51 per cent.

(a) This class, second year or advanced electrical wiring, is largely but not entirely made up of men in the electrical business, who entered that business during or following their instruction in first year wiring the season before. This shows the effectiveness of the trade preparation given in the elementary class.

(b) The drawing classes are described as trade extension because of the individual character of the instruction, which seeks to improve each students' standing in his own trade. The trades represented in the classes are varied.

(c) This is a special class of Polish men, taught by a Polish teacher. The men are mostly laborers in manufacturing establishments in the northeastern section of the city, and have but slight acquaintance with English. An English-Polish text in elementary engineering is used, and English is used so far as possible as the vehicle of instruction.

(d) The master sheet metal workers of the city, organized as the Roofing, Metal and Heating Engineers of Philadelphia, actively coöperate with the school in sending their apprentices and other workers to the classes. They give a prize at the annual commencement exercises. Their apprenticeship committee visits the school and advises regarding the course of instruction.

Classes are restricted to men employed in the sheet metal trade.

(e) The Master Plumbers' Association of Philadelphia actively coöperates with the school in sending apprentices and other workers to the classes, and in visiting the classes. The present National President and National Secretary of the Master Plumbers' Associations of the United States are Philadelphia men, and are frequent visitors to the school. The association gives a prize at the annual commencement exercises. The classes are restricted to workers in the plumbing trade.

## SOUTH PHILADELPHIA EVENING HIGH SCHOOL

| Subject | Enrollment | | Average Attendance | | Per Cent Attendance for Department | Type of Classes |
|---|---|---|---|---|---|---|
| | Class | Department | Class | Department | | |
| Mechanical Drawing | 40 | .. | 22 | .. | .. | Extension |
| Mechanical Drawing | 37 | .. | 17 | .. | .. | Extension |
| Mechanical Drawing | 36 | .. | 16 | .. | .. | Extension |
| Sheet Metal—Drawing | 47 | .. | 20 | .. | .. | Extension (*f*) |
| Architectural Drawing | 44 | .. | 34 | .. | .. | Extension |
| Free-hand Drawing | 24 | 228 | 15 | 124 | 47.6 | Preparatory |
| Electrical Construction | 55 | 55 | 34 | 34 | 61.8 | Preparatory |
| Patternmaking and Wood-turning | 21 | 21 | 12 | 12 | 57.1 | Preparatory |
| Machine Construction | 20 | 20 | 13 | 13 | 65.0 | Preparatory |
| Total Industrial and Drawing | .. | 324 | .. | 183 | 56.5 | |
| Total for school | .. | 1,870 | .. | .. | 48.4 | |
| Male | 964 | | | | | |
| Female | 906 | | | | | |
| Total | 1,870 | | | | | |

Enrollment in industrial and drawing classes was 324, or 17.3 per cent of the total enrollment. The attendance per evening was 183, or 56.5 per cent, as compared with the total per cent attendance of 48.4 per cent.

(*f*) This class in sheet metal pattern drafting is entirely composed of men employed in that trade at the Philadelphia Navy Yard.

## NORTHEAST EVENING HIGH SCHOOL

| Subject | Enrollment | | Average Attendance | | Per Cent Attendance for Department | Type of Classes |
|---|---|---|---|---|---|---|
| | Class | Department | Class | Department | | |
| Drawing—Free-hand and Architectural | 47 | .. | 23 | .. | .. | Preparatory |
| Mechanical Drawing | 110 | .. | 57 | .. | .. | Extension |
| Mechanical Drawing | 47 | .. | 22 | .. | .. | Extension |
| Mechanical Drawing | 32 | .. | 18 | .. | .. | Extension |
| Mechanical Drawing | 53 | .. | 23 | .. | .. | Extension |
| Mechanical Drawing | 51 | 340 | 31 | 174 | 51.2 | Extension |
| Carpentry and Cabinetmaking | 32 | .. | 20 | .. | .. | Preparatory |
| Carpentry and Cabinetmaking | 31 | .. | 21 | .. | .. | Preparatory |
| Patternmaking | 28 | 91 | 19 | 60 | 65.9 | Preparatory |
| Plumbing, Second Year | 20 | .. | 12 | .. | .. | Extension (*g*) |
| Plumbing, First Year | 40 | .. | 15 | .. | .. | Extension |
| Plumbing, First Year | 39 | 99 | 17 | 44 | 44.4 | Extension |
| Stationary Engineering | 19 | 19 | 6 | 6 | 31.6 | Preparatory |
| Total for Industrial and Drawing | .. | 549 | .. | 284 | 51.7 | |
| Total for school | .. | 2,791 | .. | .. | 44.2 | |
| Male | 1,640 | | | | | |
| Female | 1,151 | | | | | |
| Total | 2,791 | | | | | |

Enrollment in industrial and drawing classes was 549, or 19.7 per cent of the total. The attendance per evening in these classes was 284, or 51.7 per cent, as compared with the total per cent attendance of 44.2 per cent.

(*g*) Plumbing classes are restricted to workers in that trade, and are conducted in active coöperation with the Master Plumbers' Association of Philadelphia, in some respects as at Central Evening High School.

WEST PHILADELPHIA EVENING HIGH SCHOOL

| Subject | Enrollment | | Average Attendance | | Per Cent Attendance for Department | Type of Classes |
|---|---|---|---|---|---|---|
| | Class | Department | Class | Department | | |
| Machine Construction | 32 | 32 | 12 | 12 | 37.5 | Preparatory |
| Patternmaking and Cabinetmaking | 39 | 39 | 19 | 19 | 48.7 | Preparatory |
| Mechanical Drawing | 39 | .. | 17 | .. | .. | Extension |
| Mechanical Drawing | 27 | .. | 14 | .. | .. | Extension |
| Free-hand Drawing | 37 | 103 | 14 | 45 | 43.7 | Preparatory |
| Total Industrial and Drawing | .. | 174 | .. | 76 | | |
| Total for school | .. | 1,760 | .. | .. | 42.7 | |
| Male | 646 | | | | | |
| Female | 1,114 | | | | | |
| Total | 1,760 | | | | | |

Enrollment in industrial and drawing classes was 174, or 9.9 per cent of the total enrollment. The attendance per evening being 76, or 43.6 per cent, as compared with the total per cent attendance of 42.7 per cent.

FRANKFORD EVENING HIGH SCHOOL

| Subject | Enrollment | | Average Attendance | | Per Cent Attendance for Department | Type of Classes |
|---|---|---|---|---|---|---|
| | Class | Department | Class | Department | | |
| Mechanical Drawing | 26 | .. | 22 | .. | .. | Extension |
| Mechanical Drawing | 31 | .. | 20 | .. | .. | Extension |
| Mechanical Drawing | 50 | .. | 26 | .. | .. | Extension |
| Architectural Drawing | 43 | .. | 21 | .. | .. | Extension |
| Commercial Art | 34 | 184 | 18 | 107 | 58.1 | Preparatory |
| Wood-turning | 31 | .. | 19 | .. | .. | Preparatory |
| Patternmaking and Cabinetmaking | 38 | 69 | 19 | 38 | 57.9 | Preparatory |
| Machine Construction | 13 | 13 | 10 | 10 | 76.9 | Preparatory |
| Electrical Construction | 21 | 21 | 14 | 14 | 66.7 | Preparatory |
| Auto Mechanics | 49 | 49 | 32 | 32 | 65.3 | Preparatory |
| Total Industrial and Drawing | : | 336 | .. | 201 | 59.8 | |
| Total for school | .. | 1,821 | .. | .. | 54.5 | |
| Male | 823 | | | | | |
| Female | 998 | | | | | |
| Total | 1,821 | | | | | |

Enrollment in industrial and drawing classes was 336, or 18.4 per cent of the total enrollment. The attendance per evening was 201, or 59.8 per cent, as compared with the total per cent attendance of 54.5 per cent.

Formal questions given to each pupil in the same manner have elicited the information contained in the tabulations and statements which follow.

Pupils in giving causes for leaving day school have in some cases given more than one reason. The 443 cases assigning economic pressure at home as the impelling motive, have not in all cases advanced it as the main reason but rather a contributing factor.

Pupils gave as motives for leaving day school the following reasons:

443 pupils—because parents or other members of family needed my financial support.
256 " —other reasons (unassigned).
133 " —because I could not see the value of my continuing in school.
89 " —because the school did not teach what I wanted to learn.
72 " —because I did not like to study books.
63 " —because parents could not see the need of my continuing in school.

## Ages of the Pupils Attending Evening Industrial Classes

| Number of Pupils | Age, Years | Number of Pupils | Age, Years |
|---|---|---|---|
| 0 | 14 | 84 | 19 |
| 9 | 15 | 76 | 20 |
| 118 | 16 | 186 | 20–25 |
| 157 | 17 | 97 | 25–30 |
| 133 | 18 | 79 | Over 30 |

A table showing the extent of the day school attendance of this group of evening school pupils discloses that almost a third of them have had only 8 years' preparation. Those with but 7 years' preparation comprise about one-fifth of the group. A similar number have attended for a total of 9 years.

## Number of Years Pupils Attended Day School

| Number of Pupils | Years | Number of Pupils | Years |
|---|---|---|---|
| 2 attended | 1 | 303 attended | 8 |
| 9 " | 2 | 176 " | 9 |
| 8 " | 3 | 99 " | 10 |
| 19 " | 4 | 43 " | 11 |
| 25 " | 5 | 25 " | 12 |
| 61 " | 6 | 7 " | Over 12 |
| 163 " | 7 | | |

## Grades Previously Completed in Day School by this Group of Evening School Pupils

| Pupils | | Pupils | |
|---|---|---|---|
| 2 | completed the first grade | 34 | completed the ninth grade |
| 5 | " " second " | 17 | " " tenth " |
| 6 | " " third " | 7 | " " eleventh " |
| 20 | " " fourth " | 36 | " " twelfth " |
| 25 | " " fifth " | 120 | " " first year high school |
| 69 | " " sixth " | 29 | " " second" " " |
| 215 | " " seventh " | 24 | " " third " " " |
| 233 | " " eighth " | 24 | " " fourth " " " |

The ages of fourteen, fifteen, and sixteen are the ones at which a heavy school attendance mortality is noted. This is shown for this particular group of evening school pupils in the following table:

## Age Pupils Left Day School

| Number of Pupils | Years of Age | Number of Pupils | Years of Age |
|---|---|---|---|
| 1 at less than | 10 | 217 | 16 |
| 5 | 10 | 44 | 17 |
| 4 | 11 | 25 | 18 |
| 22 | 12 | 8 | 19 |
| 44 | 13 | 4 | 20 |
| 372 | 14 | 1 | 21 |
| 145 | 15 | 1 | Over 21 |

## Nationalities Represented

As to nationality of parents, it was found that slightly over 50 per cent of both the fathers and the mothers of this group of evening school pupils were foreign-born, while only 15 per cent of the pupils themselves were born outside of this country.

The tables which are given show the distribution as to the countries of birth, in the 6 highest instances.

### Place of Father's Birth

| | | | |
|---|---|---|---|
| Native born | 442 | Ireland | 70 |
| Germany | 114 | Italy | 70 |
| Russia | 94 | England | 45 |

### Place of Mother's Birth

| | | | |
|---|---|---|---|
| Native born | 436 | Ireland | 71 |
| Germany | 96 | Italy | 71 |
| Russia | 95 | England | 39 |

### Place of Pupil's Birth

| | | | |
|---|---|---|---|
| Native born | 787 | England | 17 |
| Russia | 45 | Ireland | 10 |
| Italy | 26 | Scotland | 9 |

A portion of those attending evening classes have completed courses in evening schools previous to this year. This is shown as follows by subject:

| Name of Course | Number of Pupils Who have Previous to this Year Completed Courses in Evening Schools of Various Kinds | | | | |
|---|---|---|---|---|---|
| | Public | Private | Y.M.C.A. | Parochial | Other |
| Mechanical Drawing | 70 | 5 | .. | .. | 1 |
| Architectural Drawing | 20 | 2 | .. | .. | .. |
| Free-hand Drawing | 4 | .. | .. | .. | .. |
| Machine Shop | 6 | 1 | .. | .. | .. |
| Pattern Shop | 1 | .. | .. | .. | .. |
| Plumbing | 50 | .. | .. | .. | 2 |
| Electrical | 49 | 1 | .. | .. | 2 |
| Printing | .. | .. | .. | .. | .. |
| Woodwork | 14 | .. | .. | .. | .. |
| English | 22 | 2 | 1 | .. | 2 |
| Mathematics | 34 | 6 | 1 | 3 | 3 |
| Science | 2 | .. | .. | .. | 2 |
| Bookkeeping | 13 | 7 | 1 | .. | 5 |
| Shorthand | 8 | 4 | .. | .. | 1 |
| Salesmanship | .. | .. | 1 | .. | .. |
| Miscellaneous | 11 | .. | 4 | .. | 3 |

Some pupils now in public evening school courses had completed one or more years in a subject prior to this year.

The four largest groups represented are shown as follows:

| Extent of Former Instruction | Pupils in | | | |
|---|---|---|---|---|
| | Electrical | Plumbing | Architectural Drawing | Mechanical Drawing |
| Less than 1 year | 0 | 0 | 3 | 12 |
| 1 year | 61 | 24 | 13 | 64 |
| 2 years | 4 | 10 | 3 | 26 |
| 3 years | 2 | 3 | 0 | 6 |
| 4 years | 0 | 1 | 2 | 2 |
| Over 4 years | 0 | 0 | 0 | 3 |

A number of those attending evening industrial classes have had some form of organized group instruction other than in evening schools. Out of the 1024 pupils considered, it was found that 111 of them had such instruction.

The daily occupations of the evening industrial pupils are listed under the names of the trades and the classifications of work in such employment.

## Daily Occupation of Pupils

| Trade | Class of Work | | | |
|---|---|---|---|---|
| | Helper | Apprentice | Journeyman | Foreman |
| Machinist | 38 | 52 | 33 | 8 |
| Cabinetmaker | 2 | 3 | 2 | .. |
| Patternmaker | .. | 18 | 5 | 1 |
| Sheet Metal Worker | 9 | 6 | 5 | 1 |
| Plumber | 30 | 40 | 20 | 4 |
| Draughtsman | 8 | 15 | 3 | 2 |
| Carpenter | 4 | 9 | 15 | 5 |
| Electrician | 53 | 31 | 31 | 7 |
| Miscellaneous | 261 | 81 | 56 | 32 |
| Total | 405 | 255 | 170 | 60 |

When asked if the work in evening school courses was proving helpful in the daily occupations of the pupils, 654 answered yes and 151, no. Those in doubt about this matter numbered 31, the others not answering at all.

The group was asked to give suggestions as to how the work of the school could be made more valuable. A few of the replies indicated that the facilities as to equipment, room, and number of evenings could be improved. Lack of supplies was mentioned a number of times. Many persons did not respond in any way to this question.

TRADE EXPERIENCE OF THE EVENING INDUSTRIAL PUPILS IS SHOWN IN THE FOLLOWING TABLE

| Trade Experience in Years | Pupils in | | | |
|---|---|---|---|---|
| | Electrical | Plumbing | Architectural Drawing | Mechanical Drawing |
| Less than 1 | 42 | 16 | 4 | 21 |
| 1 | 28 | 19 | 12 | 45 |
| 2 | 33 | 24 | 10 | 38 |
| 3 | 12 | 18 | 6 | 28 |
| 4 | 11 | 5 | 6 | 12 |
| 5 | 22 | 1 | 5 | 5 |
| 6 | 8 | 6 | 0 | 4 |
| 7 | 4 | 2 | 2 | 1 |
| 8-10 | 6 | 1 | 2 | 1 |
| 10-15 | 2 | 2 | 4 | 11 |
| Over 15 | 2 | 2 | 1 | 3 |

Pupils who are employed during the day and who are continuing their preparation through evening instruction have reported on the number of hours per week which they work. This is shown in tabular form for the four largest groups studied.

LENGTH OF THE WORKING WEEK

| Number of Hours per Week | Pupils in | | | |
|---|---|---|---|---|
| | Electrical | Plumbing | Architectural Drawing | Mechanical Drawing |
| Less than 40 | 2 | 2 | 2 | 6 |
| 41 to 45 | 57 | 66 | 29 | 71 |
| 46 to 50 | 53 | 20 | 18 | 56 |
| 51 to 55 | 28 | 7 | 4 | 47 |
| Over 55 | 23 | 6 | 2 | 5 |

Evening industrial pupils who are employed regularly during the day receive a wide range of wages. A table showing this for certain occupational groups is here given.

WAGES PER WEEK OF MEN WHO ATTEND EVENING INDUSTRIAL CLASSES

| Wages per Week | Pupils in | | | |
|---|---|---|---|---|
| | Electrical | Plumbing | Architectural Drawing | Mechanical Drawing |
| Less than $10 | 2 | 3 | 2 | 6 |
| $10 to $15 | 31 | 21 | 16 | 32 |
| $16 to $20 | 44 | 16 | 7 | 43 |
| $21 to $25 | 29 | 23 | 6 | 28 |
| $26 to $30 | 24 | 16 | 17 | 14 |
| $31 to $35 | 46 | 3 | 4 | 15 |
| $36 to $40 | 12 | 4 | 6 | 14 |
| $41 to $50 | 21 | 4 | 0 | 12 |
| Over $50 | 0 | 1 | 0 | 4 |

### The Philadelphia Trade School for Girls

The Philadelphia Trade School for Girls is located at Pine and Quince Streets. It was built in 1850 and remodeled to some extent in 1918. The community surrounding the school is a residential, commercial, and industrial one. A tenement district (colored) with small second-hand shops is found in the immediate vicinity.

**Activities of Local Organizations Regarding Trade Education.** The Advisory Committee of the Girls' Trade School includes representation from the following organizations: Emergency Aid, Women's Trade Union League, White-Williams Foundation, Carson College for Girls, Seybert Foundation, the Manufacturers' Association, and various departments of the local public school organization. The Armstrong Society of the Urban League has organized evening classes for power machine operating for colored workers.

**Length of School Day.** The length of the school day is 6 hours, from 8.45 A. M. to 3.30 P. M. Three hours are devoted to trade work on a useful and productive basis and 3 hours to academic and related subjects. The school is in session 5 days a week.

**Federal Aid.** This school received Smith-Hughes' aid to the amount of $5446 for the fiscal year ending June 30, 1920. The recommendations concerning the plant and equipment made by the principal and teachers were as follows:

A set of modern dress forms.
A Jackrabbit motor for foot power machines.
Locker space for individual pupil's supplies.
Full length mirrors for dressmaking rooms.
Electric stove for renovating millinery materials.
Foot rests on sewing tables need adjustment.
A program clock.
An apartment for homemaking classes planned for a family of very modest income, including kitchen in which children could prepare food.
Drinking fountain.
These things should be provided.

**Attendance in Day, Continuation, and Evening Classes.** The following information presents the facts relative to attendance in day, continuation and evening school classes conducted by the Girls' Trade School in Philadelphia:

ATTENDANCE RECORD OF PHILADELPHIA TRADE SCHOOL FOR GIRLS FROM DATE OF INCORPORATION INTO PUBLIC SCHOOL SYSTEM TO PRESENT (OCTOBER, 1921)

DAY SCHOOL

1918

| Month | Number on Roll | Per Cent Attendance | Classified by Courses | | | |
|---|---|---|---|---|---|---|
| | | | Dressmaking | Millinery | Dressmaking and Operating | Operating |
| January | 66 | 72.1 | 16 | 10 | 33 | 7 |
| February | 86 | 87.1 | 9 | 10 | 58 | 9 |
| March | 85 | 81.0 | 6 | 11 | 55 | 13 |
| April | 82 | 74.0 | 6 | 12 | 54 | 10 |
| May | 80 | 80.0 | 6 | 13 | 51 | 10 |
| June | 70 | 79.7 | 3 | 12 | 46 | 9 |

(Girls completing work put into trade for probationary experience.)

1918–19

| | | | | | | |
|---|---|---|---|---|---|---|
| September | 51 | 89.0 | 11 | 2 | 35 | 3 |
| October | 52 | .... | 9 | 2 | 38 | 3 |
| November | 54 | 86.0 | 9 | Dropped | 41 | 4 |
| December | 61 | 80.0 | 22 | .. | 34 | 5 |
| January | 80 | 73.8 | 24 | .. | 46 | 10 |
| February | 86 | 73.2 | 16 | .. | 61 | 9 |
| March | 82 | 80.2 | 9 | .. | 69 | 4 |
| April | 79 | 74.8 | 18 | .. | 58 | 3 |
| May | 80 | 73.0 | 20 | .. | 51 | 9 |
| June | 53 | 77.1 | 48 | 66 | .. | 5 |

Graduates (including girls recalled from trades), February, 1919, 25; June, 1919, 17.

1919–20

| | | | | | | |
|---|---|---|---|---|---|---|
| September | 120 | 90.2 | 92 | 22 | .. | 6 |
| October | 150 | 87.8 | 115 | 27 | .. | 8 |
| November | 147 | 86.6 | 110 | 6 | .. | 31 |
| December | 154 | 74.0 | 120 | 28 | .. | 6 |
| January | 191 | 72.0 | 127 | 47 | .. | 17 |
| February | 181 | 70.2 | 113 | 50 | .. | 18 |
| March | 163 | 76.9 | 95 | 52 | .. | 16 |
| April | 150 | 69.9 | 88 | 46 | .. | 16 |
| May | 133 | 72.5 | 77 | 39 | .. | 17 |
| June | 153 | 78.2 | 97 | 43 | .. | 13 |

Graduates June, 1920....28.

1920

| | | | | | | |
|---|---|---|---|---|---|---|
| September | 173 | 67.2 | 104 | 58 | .. | 11 |

CONTINUATION CLASSES IN PHILADELPHIA TRADE SCHOOL FOR GIRLS

1918–19

| Month | Number on Roll | Per Cent Attendance | Month | Number on Roll | Per Cent Attendance |
|---|---|---|---|---|---|
| September | 9 | 66.7 | February | 26 | 80.0 |
| October | 11 | No record | March | 26 | 80.0 |
| November | 20 | 95.5 | April | 23 | 80.0 |
| December | 25 | 80.0 | May | 22 | 83.3 |
| January | 28 | 80.0 | June | 21 | 70.0 |

In 1919–20 classes were discontinued.

In September, 1920, there were 18 enrolled in the machine operating course.

EVENING TRADE CLASSES FOR WOMEN PHILADELPHIA TRADE SCHOOL FOR GIRLS

| Year | Number of Teachers | Enrollment | Attendance at Close of Term | Distribution by Course | | | |
|---|---|---|---|---|---|---|---|
| | | | | Dressmaking | Millinery | Power Operating | Novelties |
| 1918–19 | 3 | 58 | 23 | 22 | 14 | 14 | 8 |
| 1919–20 | 5 | 158 | 77 | 79 | 43 | 26 | .. |
| 1920 | 7 | 153 | .. | .. | .. | .. | .. |

(October 4—153 paid registrations; 30 additional registrations; 182 class registrations—50 sewing, 62 dressmaking, 70 millinery—29 overlaps, enrolled for more than one course.)

1. Distribution by Nativity.

| | | | |
|---|---|---|---|
| United States | 147 | Austria | 1 |
| Ireland | 4 | Balkan States | 1 |
| Russia | 4 | | — |
| Italy | 1 | Total | 158 |

2. Analysis of Attendance by Sessions.

| Sessions | Number of Students | Sessions | Number of Students |
|---|---|---|---|
| 1–9 | 20 | 50–59 | 22 |
| 10–19 | 37 | 60 and over | 14 |
| 20–29 | 27 | | — |
| 30–39 | 15 | Total | 158 |
| 40–49 | 23 | | |

3. Comparative attendance in evening classes for years 1918–19 and 1919–20.

| Month | 1918–19 | | | 1919–20 | | |
|---|---|---|---|---|---|---|
| | Number Enrolled | Number Attended | Per Cent Attendance | Number Enrolled | Number Attended | Per Cent Attendance |
| October-November | 29 | 21 | 72.4 | 125 | 99 | 79.2 |
| December | 28 | 18 | 64.3 | 137 | 85 | 62 |
| January | 36 | 20 | 55.5 | 154 | 73 | 44.9 |
| February | 46 | 26 | 56.5 | 158 | 71 | 48.7 |
| March | 58 | 23 | 39.7 | 158 | 71 | 48.7 |

**Counselor Provided by White-Williams Foundation.** Provisions for the services of a counselor whose duty is that of guidance, placement and follow-up is made by the White-Williams Foundation. The findings of an investigation entitled Trade School Girls in the Needle Trades is on file at the headquarters of this organization, 1522 Cherry Street.

**Teaching Staff.** The teaching staff of the Girls' Trade School consists of 8 full-time teachers and 1 part-time teacher. Their work is divided into three types of instruction: practical, related, and academic. These classifications conform to the state regulations governing Smith-Hughes work.

**Subjects Taught.** The trade subjects taught are Dressmaking, Power Machine Operating, and Millinery. The related subjects are Trade Mathematics, Textiles, and Design. The academic subjects are Civics, Hygiene, Industrial History, and English.

Provision is made for the girls to receive one double period per week in instruction in home-making at a nearby school, teachers being provided from the regular staff of the home economics department in the public school system. Home decoration and house-furnishing is under the direct supervision of the principal, who proposes to institute those classes herself, furnishing successively a room in the building as a dining room, bedroom and living room. The advisory committee of the school will financially back this enterprise. It is proposed to sell the furnishings after the work has been completed for each type of room.

**Girls and Women Employed in Gainful Occupations.** The proportion of girls and women in gainful occupations in Pennsylvania compared with the total female population ten years of age and over is recorded in the U. S. Census, 1910, Vol. IV, Occupation Statistics:

| State | Total | Engaged in Gainful Occupations | Per Cent |
|---|---|---|---|
| Pennsylvania | 2,901,033 | 605,436 | 20.9 |

Some idea of the number in 1920 in Philadelphia may be gained in the following manner. The United States census report for 1910 gave the number of women in all gainful occupations in Philadelphia as 200,298 (Population: Occupation Statistics, 1910, p. 181, U. S. Bureau of the Census, Dept. of Commerce, Washington, D. C., 1914). The United States census of 1900 gave the number of women in all gainful occupations in Philadelphia as 147,653. This was an increase of 52,645, or 35.7 per cent, between the years 1900 and 1910. Assuming the same increase (35.7 per cent) between the years 1910 and 1920, the number of women in all occupations in Philadelphia in 1920 may be conservatively estimated at 271,804.

**Laws Regulating Employment of Women.** Under the Pennsylvania laws regulating the employment of women, they are prohibited from working in any establishment more than 6 days in any one week, or more than 54 hours in any one week, or more than 10 hours in any one day. with certain specified exceptions (Woman's Act of 1913 as amended 1915, p. 2, section 3, Harrisburg, The State, 1915). By the Woman's Act of 1913 as amended 1915 (Sections 6 and 7), "Not less than forty-five minutes shall be allowed to every female employed or permitted to work in, or in connection with, any establishment, for the midday meal, which period shall not be considered a part of the hours of labor: Pro-

vided, that whenever any female shall be employed or permitted to work in, or in connection with, any establishment for less than eight hours in any one day, the time allowed for the midday meal may be reduced not less than thirty minutes.

Employees shall not be required to remain in work-room during the time allowed for meals."

**Intervals Between Work Periods.** "Section 7. No female shall be employed or permitted to work for more than six hours continuously in, or in connection with, any establishment, without an interval of at least forty-five minutes, and no period of less than forty-five minutes shall be deemed to interrupt a continuous period of work. Provided, That whenever any female shall be employed or permitted to work in, or in connection with, any establishment for less than eight hours in any one day, the interval between work periods may be reduced to not less than thirty minutes.

Employees shall not be required to remain in the work-rooms during the rest periods required by this section."

Section 4 (same reference) runs as follows: "No female shall be employed or permitted to work in any manufacturing establishment before the hour of six o'clock in the morning, or after the hour of ten o'clock in the evening, of any day: Provided that this section shall not apply to managers, superintendents, or persons doing clerical or stenographic work."

**Wages of Women Workers.** There is no minimum wage law in Pennsylvania. The minimum for subsistence as estimated by the Consumers' League was $14.66 per week, although $16.50 has been set by the United States Government as the minimum wage in the District of Columbia.

The wages of women workers in factories according to a statement of a representative of the State Department of Inspection ranks between $12 and $40 per week.

**Clothing.** Women in the clothing factories work 44 hours a week and receive the highest wages. When pay is high, however, as in the case of women's cloaks and suits, the work is very seasonable so that the yearly earnings are not very great.

**Textiles.** Women in the textile mills work 48 hours per week and receive less pay.

**Candy Factories.** For women in candy factories the medium wage according to "Wages of Candy Makers in Philadelphia in 1919," Bulletin 4, Women in Industrial Service, U. S. Department of Labor,

is a little more than $10 a week. Four hundred and fifty dollars is a liberal estimate below which the wages of half the workers fall.

**Department Stores.** Messenger girls on working permits receive an initial salary of $6 to $7 a week. Some continuation school girls receive $4 to $5 a week chiefly in clerical work and are advanced at the rate of 50 cents every three months. Upon graduation from the schools maintained by the store they are raised $1 a week and every six months thereafter. Bonus payments on sales range from .5 per cent to 5 per cent. Experienced saleswomen start at $10 and $12 a week and the average ranges between $15 and $18 a week. Eight thousand dollars a year is the maximum salary for women buyers.

**Telephone Girls.** The pay of the telephone girl ranks from a minimum of $10 to $14 a week to a maximum of $18 a week with a bonus.

**Miscellaneous.** Elevator girls in department houses get from $7 to $8 a week.

Waitresses average between $9 and $10 a week.

Chambermaids receive about $20 a month.

From the attached table arranged from information received by Miss Hale from the State Bureau of Labor Statistics, Harrisburg, the total wages paid to males and females in sixteen lines of industry previously referred to may be found. In brief, of the total workers in—

Clothing trades: ⅔ are women, receiving ⅓ the total wage. Textile trades: ½ are women, receiving ⅓ the total wage. Yarns: ⅝ are women, receiving $^3/_7$ the total wage. Printing: ⅓ women, receiving $^1/_6$ the total wage. Metals: ⅕ are women, receiving $^1/_{30}$ the total wage. Of the total of all recorded industries ⅕ are women, receiving $^1/_{10}$ the total wage.

**Coöperative Investigations and Studies Bearing on Vocational Education.** The following studies having a bearing upon wage earning opportunities for girls and women are available, or will be shortly.

Juvenile Workers in Textile Industries of Philadelphia. By M. G. Godfrey, Department of Vocational Guidance, Compulsory Attendance Bureau, 1522 Cherry Street, Philadelphia (1917).

Trade School Girls in the Needle Trades. By Muriel Brown, White-Williams Foundation.

A Directory of Opportunities for Vocational Training of Women in the State of Pennsylvania. Compiled by Mary Ellis Thompson for the Bureau of Information, Women's Committee, Council of National Defense (1919).

A Survey of Opportunities for Vocational Education in and Near Philadelphia. Compiled by Jane Harper, published by Public Education and Child Labor Association, 1720 Chestnut Street, Philadelphia.

Occupations for Trained Women (series of leaflets). Bureau of Occupations, 1302 Spruce Street.

Survey of Women Workers in Philadelphia, made by Miss Hale, National Board, Y. W. C. A., April, 1920.

Wage Earning Mothers. Miss Hughes, Bryn Mawr College, 1920.

Industrial Employment of Colored Women. Consumers' League, 1920.

Vocational Opportunities for Girls and Women in Philadelphia. Revision of Bulletin, Estelle Lauder, Chairman of Committee.

Occupations for Philadelphia Girls (Paper Box Making). Alliance Employment Bureau, 117 E. 17th Street, New York City.

Occupations for Philadelphia Girls. Issued by Consumers' League of Eastern Pennsylvania (1917–19).

**Coöperating Organizations.** The following coöperating organizations, though referred to in the body of the report, are listed here for convenience:

White-Williams Foundation, 1515 Cherry Street, Anna Pratt, Executive Secretary.

Women's Trade Union League, 1700 Ash Street, Freda Miller, Executive Secretary; Pauline Newman, Assistant.

State Labor Department, Arch Street near Sixteenth.

Seybert Foundation, 419 S. Fifteenth Street, Jessie Taft, Secretary.

Bryn Mawr College, Carola Woerishoefer Graduate Scholarship in Economics and Sociology and the Graduate School for the Study of Employment Management (endowed by John D. Rockefeller).

School of Social Service, 1302 Pine Street. Miss Robinson, Director.

Consumers' League, Otis Building, Sixteenth and Sansom Streets. Estelle Lauder, Secretary.

Field Secretary, National Y. W. C. A., 630 Witherspoon Building, Sansom and Juniper Streets, Gertrude Prack, Field Secretary, Pennsylvania, New Jersey, Delaware, Maryland, and District of Columbia.

Central Office, Local Y. W. C. A., 711 Empire Building, Thirteenth and Walnut Streets, Miss Winifred Fisher, Industrial Secretary.

The Armstrong Society of the Urban League (colored).

Association for the Study of Employment Problems, A. J. Churchill, Executive Secretary, Hotel Majestic, Broad Street and Girard Avenue.

Special committee on employment of women workers:

Miss Alice Mueller, Chairman,
Stephen F. Whitman,
Fourth and Race Streets.
Miss Juliette Stackhouse,
T. E. Brown Hosiery Co.,
Kensington, Second and Westmoreland Streets.
Mrs. L. M. Patton,
Curtis Publishing Co.
Mrs. Evelyn Binz,
Louis Walther,
Torresdale and Columbia Avenues.
Mrs. M. E. Norrell,
Philadelphia Rapid Transit Co.

Considerable information is available which has a distinct bearing on vocational education. Though a large number of women will be found in occupations for which no initial training can be given in schools, yet in these same industries there will be found operatives, factory instructors, forewomen and minor executives for whom an educational service might be developed.

There is evident need for coördination of all interested agencies, in the ultimate development of such a program within the industries themselves. Just what part of this the industry should supply and what service the public school should render will be a problem for future solution. This program will not evolve spontaneously; the group to be served is large; the program complex. Social legislation may have its place, but it must not be substituted in lieu of an educational program to meet the needs of workers.

The report of the President's Industrial Council recommends (under signature of William B. Wilson, Chairman, and Herbert Hoover, Vice-Chairman) that: "Women should not be discriminated against in respect to opportunities for training and advancement or the representation of their interests."

### SCHOOLS NOT UNDER PUBLIC CONTROL

**General Statement.** Educational institutions other than the public schools are giving a variety of courses secondary in grade, in trade and industrial education and the industrial arts. Among those which have been offering day and evening courses or both, are Berean Manual Training and Industrial School, Drexel Institute, Franklin Institute School of Mechanic Arts, Girard College, Hebrew Education Society,

Pennsylvania Museum and School of Industrial Art (Philadelphia Textile School), Philadelphia Mechanical and Electrical School, Philadelphia College of Horology, Spring Garden Institute, Wanamaker Institute, Williamson Free Trade School, Y. M. C. A. of Philadelphia, Germantown Y. M. C. A.

While the institutions mentioned differ in some respects as to organization, control, and type of work offered, they all offer some courses of an industrial nature which are open to the people of Philadelphia.

A discussion of the work of each school follows:

**Berean Manual Training and Industrial School.** The Berean Manual Training and Industrial School is located at 1926 College Avenue. It aims to give instruction to negroes in academic work in the trades, and for the girls in Domestic Science and Art. The school year is from October to June. It is not necessary for a prospective pupil to have attained any educational preparation previous to enrolling in this school.

**Wanamaker Industrial Institute.** The Wanamaker Industrial Institute is located at Twenty-third and Walnut Streets. Instruction in the languages and in commercial subjects is given. Millinery, Dressmaking, and Cooking are taught and trade courses are given in Garment Cutting, Printing, Mechanical Drawing, Watch and Clock Making and Telegraphy.

No formal entrance requirements are required but pupils must be 15 years of age before entering. The school is open to pupils of all denominations. It is governed by a Board of Trustees.

The school year is as follows: the morning school, September to May; the afternoon and evening school from September to April. The courses vary in length. Tuition, varying with the nature of the work, ranges from $15 to $50.

The enrollment is 125 for day courses and 635 for the evening school.

**Spring Garden Institute.** Spring Garden Institute is said to have had the first manual training class in America. It is located at Broad and Spring Garden Streets.

Practical courses are offered in Machine Shop, Patternmaking, Electrical Work, Auto Repair, Drafting, and Art. A garage is run in connection with the school and an extensive equipment is provided for instruction in automobile work.

Courses are offered for men and women but they serve the former to a larger extent. There are no formal requirements for entrance, and

the terms are so arranged as to admit pupils at various times during the year.

The present enrollment is 1027 pupils, of which number 220 are wounded soldiers, taking re-training for useful occupations.

**The Philadelphia College of Horology.** The Philadelphia College of Horology is located at Broad and Somerset Streets. It is a proprietary institution twenty-nine years old.

Pupils may enter at any time without formal requirements and receive individual instruction in Watch Repairing, Engraving (Jewelry), and Jewelry Repairing.

The cost to pupils is $20 per month and the courses indefinite in length. No commercial work is produced.

The enrollment of the school is recruited through trade journals and through efforts on the part of jewelers to interest young men in such work. At present there are 80 day pupils and 8 in the evening class.

**The Philadelphia Mechanical and Electrical School.** The Philadelphia Mechanical and Electrical School, located at 614–18 Brown Street and 720–24 Marshall Street, is a private school for automobile work.

The course is six months in length and pupils may enter at any time for day and evening instruction. The kinds of work given are Auto Electrical Work, Armature Winding, General Motor Repairs, Machine Shop Work, Storage Battery Repair, and Driving Instructions.

Enrollment at the present time includes 150 day pupils and 250 taking evening courses.

**The Pennsylvania Museum and School of Industrial Art, Philadelphia Textile School.** The Philadelphia Textile School is located at Broad and Pine Streets. It is a part of the Pennsylvania Museum and School of Industrial Art.

Courses in textiles from the raw product to the finished fabric are given. At the present time the Textile School desires only high school graduates as entrants to these courses.

Industrial subjects taught in the Art School are Building Construction, Woodworking, Carving, Casting, Wrought Iron Work, Metal Work, Enameling, Jewelry and Pottery. Pupils must be 16 years of age and must satisfy requirements in English and Drawing.

These schools give day and evening instruction from October to June. The evening classes are in session Monday, Wednesday, and Friday from 7.30 to 9.30 P. M.

**Girard College.** Girard College was founded by the will of Stephen Girard. It is an institution for the rearing and educating of orphan boys.

Boys are admitted between 6 and 10 years of age and remain until from 14 to 18 years of age. Preference is given to boys living in certain localities in the matter of eligibility to entrance.

Regular admissions of new pupils are in September and February, and the school year runs from September 1st to June 30th.

The boys live in the school and have all of their needs met by the institution.

There are 1540 boys in the school. A part-time plan in operation provides that 75 of them work in outside establishments, alternating between work and school. Of these, 54 are in industrial establishments.

The trade courses offered are Machine Practice, Carpentry, Pattern-making, Printing, Electrical Construction, Foundry, Forging, and Mechanical Drawing.

Productive work of the school shops is consumed by the needs of the College. Several thousand dollars' worth of products are turned out annually.

**Drexel Institute.** Drexel Institute is located at Thirty-second and Chestnut Streets. The work given in this institution in the day school is of college grade. It is coeducational and takes in a variety of courses.

Technical courses in the day school enroll 200 students. The evening engineering classes have an enrollment of 1862. Forty-three men in the day school are on half time, with the other half spent in industry.

The mechanical equipment in the institution includes Wood Shop, Machine Shop, Foundry, Steam Engine Laboratory, Forge Shop, Mechanical Laboratory, Electrical Laboratory, Internal Combustion and Engine Room.

**Franklin Institute.** Franklin Institute School of Mechanic Arts offers evening courses of an industrial nature. It is located at 15 South Seventh Street. The Institute is open daily and some classes are in session every night but Saturday and Sunday. The school continues during the year from September to April.

Two-year evening courses are offered in Mechanical Drafting, Architectural Drafting, Free-hand Drawing and in Applied Mechanics, Strength of Materials and Machine or Structural Design. A three-year course is offered in naval architecture. The tuition for all of the courses except naval architecture is $15 per year. Naval architecture is $20 per year.

Students may enter any time during the school term. In general students may enter regular courses by meeting one of the following requirements: (1) certificate of satisfactory preparation in the Philadelphia schools, (2) by transfer of credit from schools in other places,

(3) by examination. Men may enter as special students on recommendation of faculty members.

On November 9, 1920, enrollment in the evening classes was 438 individual students.

**Hebrew Educational Society.** This society conducts three evening schools located at different sections of the city. Two of the schools offer instruction of a vocational nature, and the one located at the southwest corner of Tenth and Carpenter Streets offers a course in Telegraphy.

Men or women who have completed eight public school grades may enter the course. The term begins in September and entrance of students is allowed quarterly thereafter. No tuition is charged for the course in Telegraphy. There were 18 enrolled in this course November 10, 1920.

**Williamson Free School of Mechanical Trades.** The Williamson School is located at Williamson School, Pa., 16 miles from Philadelphia. It can be reached either by railroad or trolley from the city. Due to the close proximity to Philadelphia and to the fact that boys born in Philadelphia are given first preference when admitting students, this is essentially a Philadelphia institution.

Only day trade courses are given. They include the Machinist Trade, Carpenter Trade, Patternmaking and Molding Trade, Bricklaying, Operating Engineering (power plant operation) and Scientific Agriculture.

Students are allowed to enter only between the ages of 16 and 18 years. Entrance to the courses of the school is not dependent upon school standing but qualifications for admission are based on examinations and conferences. There is no charge made for tuition and there are no fees. New students enter May first each year and each term of school is 11 months. Each course is 3 years in length. On December 15, 1920, the enrollment was 160 regular students and 100 men disabled in war service.

**The Y. M. C. A. of Philadelphia.** Courses of an industrial nature are offered in the evening at the following centers:

Central Building, 1421 Arch Street
West Building, Fifty-second and Sansom Streets
North Building, 1013 West Lehigh Avenue
Southwest Building, 1724 Christian Street

The courses in all of the buildings are open to men, women, boys and girls, 16 years of age and over. In regard to entrance requirements, each course requires sufficient background of schooling to meet the requirements of the instruction. These requirements, however, vary

and in considering applicants, general intelligence and business and industrial experience are taken into account. At the time of registration, educational and vocational counsel is given.

The following industrial courses are offered in the various Y. M. C. A. buildings and in industrial plants as the plants may arrange for them. With the exception of the day mechanical course in the automobile school, all of the courses are given in the evening.

1. Automobile School—special building under Central Y. M. C. A.
   Day and Night Mechanical Courses,
   Driving Course,
   Auto-Tractor Course,
   Day and Night Electrical Courses,
   Storage Battery Course.
2. Building Construction Courses—Central, West, and North Buildings.
   Plan Reading and Drawing Course,
   Estimating Course,
   Practical Mathematics Course,
   Engineering Mathematics Course,
   Structural Design Course,
   Reinforced Concrete Construction.
3. Drafting Courses—Central, West, and North Buildings.
   Mechanical Drawing Course,
   Architectural Drawing (Plan Reading and Drawing).
4. Textile Courses—Central and North Buildings.
   Textile Design,
   Chemistry of Textiles.
5. Mathematics Courses—Central, West, and North Buildings.
   Shop Mathematics,
   Practical Mathematics,
   Engineering Mathematics.
6. Chemistry, Physics and Electricity Courses—Central Building.
7. Engineers' License Course—Central Building.
8. Highway Engineering Course—Central Building.
9. Nautical Courses—Central Building.
   Master's License Course,
   Chief Mate's and Second Mate's License Course,
   Third Mate's License Course,
   Advanced Navigation,
   Yachtsman's Course.
10. Wireless Telegraphy—Central Building.
11. Blueprint Reading Courses—Central Building.
    General Blueprint Reading Course,

Building Construction Blueprint Reading Course,
Ship Blueprint Reading Course.
12. Cartooning—Central Building.

Students may enter the courses at the periods during the year when they are scheduled to start in the Department of Instruction Announcement. Late entrants are allowed when there is evidence of ability to profit from the work.

The courses usually start late in September, with the year divided into 2 or 3 terms depending upon the subjects and the schools. A few courses run for 10 or 12 weeks. The bulk of the work runs from September to June or a period of 32 to 36 weeks.

Tuition is charged. The minimum is a few dollars for a single course of 12 weeks to a maximum of $200 for a group course of several subjects extending over a longer period.

There were 354 persons enrolled in the evening industrial and mechanic arts courses and 19 in the day course of the automobile school, November 10, 1920.

**Germantown Y. M. C. A.** The building is located at 5849 Germantown Avenue. Industrial courses are offered for men and women who wish to improve their education and training and who have sufficient schooling to do the work of the courses.

The following evening courses are offered:

1. Mechanical and Architectural Drafting,
2. Plan Reading and Estimating.
3. Shop Mathematics.
4. Show Card Writing and Sign Painting.

Students usually enter when school opens October 4th, but a student may enter at any time he feels the need of education and special training. The regular school term extends from October 4th to May 20th.

Tuition fees range from $3.50 for the shortest course to $20 for the longest.

On December 14, 1920, there were enrolled in the evening industrial courses of this school 55 persons.

## VOCATIONAL GUIDANCE IN THE PUBLIC SCHOOL SYSTEM

**Introduction.** The following statements are concerned mainly with the organization of vocational guidance activities in the Philadelphia Public Schools, and such details of method and treatment as are on record or in evidence otherwise. Little or no statement is made of the invaluable personal counseling of many teachers or the presentation of occupational possibilities in connection with regular instruction. No attempt has been made to evaluate these, because of the obvious diffi-

culty of getting a fair presentation of this work, either qualitatively or quantitatively. Where courses are organized to include some form of vocational guidance, as the English and Civics in some schools, mention of it has been made.

In the secondary schools there have been six lines of inquiry:

1. The assignment of teachers or others to counseling.
2. Analysis of pupils and occupations.
3. Counseling.
4. Placement.
5. Follow-up activities.
6. Coördination of vocational guidance activities throughout the school.

The Junior Placement Service has been considered in much the same order.

## General Statement

### The Problem of School Leaving, in High and Elementary Schools

THE HIGH SCHOOLS

January 31, 1920, to January 31, 1921

| School | Total Number Different Pupils | Dropped Out of School | |
|---|---|---|---|
| | | Number | Per Cent |
| Central High | 4,270 | 1,172 | 27 |
| Frankford | 2,426 | 574 | 24 |
| Germantown | 4,054 | 797 | 20 |
| Girls' | 1,882 | 397 | 22 |
| Kensington | 1,397 | 307 | 21 |
| Northeast | 3,026 | 751 | 25 |
| South Philadelphia Boys' | 2,457 | 552 | 22 |
| South Philadelphia Girls' | 2,281 | 535 | 23 |
| West Philadelphia Boys' | 3,061 | 754 | 25 |
| West Philadelphia Girls' | 3,780 | 862 | 23 |
| William Penn | 3,391 | 706 | 21 |
| Holmes Junior High | 2,203 | 436 | 20 |
| | 34,228 | 7,843 | 23 |

THE ELEMENTARY SCHOOL ENROLLMENT*

| Grades | Male | Female | Total |
|---|---|---|---|
| 4 | 13,598 | 13,184 | 26,782 |
| 5 | 12,810 | 12,902 | 25,712 |
| 6 | 11,445 | 11,945 | 23,390 |
| 7 | 9,228 | 9,859 | 19,087 |
| 8 | 6,403 | 7,293 | 13,696 |

**Personnel.** With the exception of three continuation school coördinators, the public school administration has not provided for guidance as a school function.

* Statistical report of Philadelphia Public Schools for year ending June 30, 1920. Enrollment June 30th.

The person designated as Employment Supervisor, assigned to the Department of Compulsory Education, is giving practically all her time to details of Employment Certification, as have her predecessors, due to the pressure of work on the attendance office and inadequate personnel facilities there.

The board has, however, willingly accepted the assistance of the White-Williams Foundation which is now aiding the schools in a study of causes of elimination and retardation, psychological and other analyses, counseling, placement and follow-up, including visitation of both homes and places of employment. Offices of the Foundation and one of its activities, the Junior Employment Service under direction of the Department of Compulsory Education and the Supervisor of Employment, are housed in the same building as the latter, at 1522 Cherry Street. Other workers are assigned to public school buildings.

Four of the girls' high schools are making a rather strenuous effort to provide organized vocational guidance in assigning teachers part-time to this work. The time given to vocational guidance, however, is provided by increasing the load on other members of the teaching staff.

**Analysis.** As regards the analysis of pupils, approximately 5581 have been tested in the secondary schools, and a larger number in the elementary schools. A number of different kinds of test have been used, both for general and special intelligence. There is no cumulative record used in high or elementary schools, and comparatively little is known of previous school records, either by high schools or the Junior Placement Service. The need of such records is especially felt in the latter, to assist in making a personal analysis of applicants for positions.

There are no self-analysis forms* used in any of the schools although the English, Civics and other studies have introduced personal planning and analysis to a varying degree in several of the schools. Teachers are assigned as advisers in nearly all senior high schools, and a certain degree of self-analysis is incident, as well as in the work of teachers assigned part-time to counseling.

Vocational analysis is most pronounced in the girls' high schools, in four of which Vocational Civics is given in the freshman year. About half of the time assigned for the term is given to a study of occupations. There has been very little visiting of places of work, except by pupils employed part-time. Estimates for these are 145 visits for high schools by members of the faculty for the year ending December 31, 1920, or an average of 12 per school. One high school counselor visited 65 places of employment. A number of other schools had apparently made none.

* See Addenda.

**Counsel.** In four of the five girls' high schools, and to a certain extent in one of the boys' high schools, a definite attempt has been made to organize counseling, although little has been done to develop records or a plan of organized personal analysis.

The teacher-adviser plan existing in most of the high schools, has functioned largely in matters regarding school irregularities and courses of study. The 3970 conferences reported are largely for counselors, and include none by teacher-advisers.

The value of this vocational counseling can be measured in large part by the counselor's knowledge of the pupil and of vocations. The present tendency toward scientific analysis coupled with a proper organization of information, will be a considerable advance in service along guidance lines. There must be, however, a more intimate knowledge of the internal aspect of the vocations, whether for immediate selection and employment or for course selection and future employment, before the counseling that exists can effectively function.

**Placement.** In the high schools 7843 students dropped out during the year and approximately 1 in 33 was placed by a school. In the 16 secondary schools, detailed statement of which follows, there were approximately 976 placements of graduates and drop-outs, or on an average of 61 per school. There were approximately 838 part-time and vacation placements or an average of 64 for 13 schools. (This figure does not include continuation schools.)

The industrial depression of the last year made the placing of students considerably more difficult, and may be considered to account for a part of the very small amount of placement work done. It should, however, account only for a part.

**Follow-up.** There were estimated to be 150 visits to firms by members of the school faculties of the 11 senior high schools. In but one of these schools were there any notes taken of visits and records made for use by the school. Some of these visits were to get occupational information, some to obtain positions, and others to follow up placements. Of the 150 visits in 11 schools there were few of the latter.

**The Coördination of Guidance Activities.** From the viewpoint of this inquiry there are two major phases of coördination, first, inter-department coördination, and second, coördination with activities outside the school. In both of these, with few exceptions, the schools have been almost entirely lacking.

Inter-department coördination depends in large part upon recognition of vocational guidance as a coöperative school function, and discussions of various angles of the problem in meetings of the entire

faculty. In but 3 of the 11 senior high schools had there been any discussion of vocational guidance at a faculty meeting, during the year ending February 1, 1921, and in only 1 of these had it been more than casual.

As regards the coördination of school and outside activities, there has been much too little correlation of course content, and very few occupational contacts otherwise. In 2 girls' high schools there is a marked correlation of the English and history departments, the latter giving vocational civics, with vocational counseling and placement. The commercial departments of the high schools have effected more or less correlation and have done some placement work, in larger part for graduates.

**Summary.** The feeling in the schools that they are organized to instruct rather than to function as an employment agency is, in the main, well taken. Certain it is that, given the type of schooling a youth is fitted for and an objective to motivate that study, all avenues should point to the school rather than away from it. With this primary current leading directly to graduation, however, there should be a well-organized secondary activity articulating throughout the entire school, functioning as one of the major activities of an efficient guidance and placement bureau, offering the most suitable employment obtainable for those who for various reasons are leaving school before graduation. It is this secondary function of the school, caring for and marketing the so-called by-product, that has been overlooked.

A word may be said as to the attitude of principals toward guidance. It is that under right leadership and organization, with a reasonable amount of latitude and individuality provided for and possible in each school, vocational guidance and other guidance activities will be welcomed by them as a school function. The need for separate guidance bureaus in each of these secondary schools in no way conflicts with an equally great need for centralization of guidance activities. Under adequate organization each school bureau will be strengthened, not only in the value of its counseling but as well in a more effective contact with those who have occupational opportunities to offer. The central office will act in a service capacity to each school bureau, with placements made either by the school or the central office, whichever is in a position most effectively to serve the pupil.

We have inferred in this inquiry that it is worth while for a school organization to have course content enriched with life activities and a vocational bureau serving both product and by-product. They both are amply justified. In view, however, of the tendency of some outside the school system to measure the services of a guidance bureau doing

placement work entirely by the latter, and to sum up the entire cost as against per capita placement, it might be well to consider the matter from the per capita cost viewpoint.

Placement costs vary from a few cents per capita to three, four or five dollars, and even more, where real guidance and follow-up is attempted. In some of the latter bureaus, the higher cost is due to inefficient management and in others, in early stages, to organization cost. Given a central office organized as a part of a school system or one of its divisions, a school bureau, let us consider per capita cost from a business standpoint.

Approximately one-third of each entering class drops out by the end of the first year. Approximately one-fourth of the class graduates. Let us first take placement by a high school bureau. It has been considered good business to have spent hundreds of thousands of dollars of public money in educating the boys and girls in almost any one of the 11 high schools of the city. With the cost to the public of many hundreds of dollars per pupil up to the time of leaving school, the two, three or even eight dollars additional per capita it might cost to effect the best obtainable transition from school to occupation would seem insignificant indeed.

In considering guidance and placement for elementary schools there is even more justification, in that for those leaving the latter, educational growth must come largely with employment. The coöperative effort of elementary school and centralized Junior Employment Service will extend through the years of the educational counseling and placement necessary to meet the adjustments that must take place. The cost of such service is little indeed in comparison to that of the instruction furnished so willingly to others of the same age in the city's high schools.

Philadelphia is fortunate in undertaking a centralized placement service and in having in a number of its secondary schools a partial articulation of guidance activities. It is to an extension of these throughout the entire school system that the development of a much needed service can best obtain.

**The White-Williams Foundation.** The White-Williams Foundation was organized in 1800 as the Magdalen Society of Philadelphia. After a number of decades it was found that efforts to eliminate delinquency must begin in the earlier preventive years. With this end in view the Society is now carrying on a very effective work for children of both sexes, through coöperation with the home and the school. The Society is maintained by public subscriptions.

The Child Labor Act effective January 1, 1916, brought about a

need and opportunity for close scrutiny of school leaving in connection with employment certification with no facilities at hand for doing this work. The schools and the Society thus had common cause and an opportunity for effective service, and at the invitation of the Board of Public Education the Society was installed in the same building as the Department of Compulsory Education at 1522 Cherry Street. The present organization of the foundation, including the Junior Employment Service under the Director of the Department of Compulsory Education, is indicated in the accompanying diagram, which also shows lines of coöperation with the Armstrong Association and the Child Welfare Committee of the Philadelphia Quarterly Meeting. In the two years 1919 and 1920 the foundation, in coöperation with the Red Cross, has given 69 scholarships, made 7117 visits to homes of school children and approximately 2000 investigations, largely involving both psychological examination and home visits. A statement of the Junior Employment Service is given elsewhere in detail. A health program has been added to these activities. Records have on the whole been very comprehensive and well maintained.

**The Philadelphia Young Men's Christian Association.** The Young Men's Christian Association is making an effort to do guidance and placement work, and maintains an employment bureau at its central branch on Arch Street. This work is organized as a commercial employment exchange, for which a fee is charged.

There is no one definitely assigned to this activity which has been incidental in the work of secretaries. A contribution, however, is made through the coöperation of experts to whom young men interested in particular lines of work are referred.

Personal analysis of young men has been conducted by oral questioning except in a few cases when the International Y. M. C. A. analysis form has been used. Analysis of vocations is largely limited to information obtained through employers, and the opinions of outside specialists coöperating. A personal record form is used which is rather comprehensive, except for the fact that there is no provision for notations of successive conferences. A reference blank is used which is more searching in its statements from former employers than usually obtains.

During the last year approximately 75 applications for employment have been made by young men under 18 years, and of these 45 were placed. There has been no follow-up of placements. Boys under sixteen applying for positions usually have been referred to the Junior Placement Bureau.

**The Philadelphia Young Women's Christian Association.** During the year 1920 there have been two workers assigned to counseling and

placement in the Young Women's Christian Association, one at the Southwest Branch and one at the Central Branch, located at 1800 Arch Street. In the Southwest Branch there have been during the last year 1367 placements of girls and women, approximately 273 of whom were under 21 years of age and in the Central Branch 1574 placements, approximately 125 under 21 years of age. Children under 16 years are referred to the Junior Employment Service.

Personal analysis has been through conferences and occupational analysis by means of visits to places of work and conferences with employers.

There are a number of forms used which are quite comprehensive for an adult placement bureau but somewhat lacking in respect to guidance. The record for place of employment is limited in occupational information but lays emphasis on conditions of employment and surroundings. Coöperative relations are maintained with many social and educational agencies in the city. The association is in need of increased workers in this field for women which is carried on without charge for service.

**The Employment Service of the Pennsylvania Department of Labor and Industry.** This Employment Service, with quarters at 1519–21 Arch Street, deals largely with adults and does no vocational guidance work. A report of this activity, however, is important in showing the large number of young men that apply to the State bureau, and the need for a closer correlation of this agency with the schools.

Approximately 15,000 young men under 21 years were referred to positions by this bureau during the last year, about 5000 of them between 16 and 18 years.

These young men meet employers' representatives at the office of the Employment Service. Records of the latter indicate only name, address, occupation, and the firm accepting them, although the blank forms used provide for more information.

The reason given for the lack of guidance and follow-up is that employers do not care for welfare activities in connection with this office, particularly in follow-up, and do not want their representatives to take the time for detailed information required. Boys under 16 are usually sent to the Junior Employment Service, a few blocks away.

**The Vocational Guidance Association of Philadelphia and Vicinity.** This association, organized in December, 1919, was designed:

1. To encourage experimentation in and the establishment of vocational guidance service.
2. To formulate standards and principles of vocational guidance.

3. To disseminate information regarding the problems and progress in vocational guidance work.

Membership is open to all interested in guidance activities.

Committees of the association include:

1. Executive committee.
2. Committee on investigations, exhibits, and surveys.
3. Committee on service.

A report of the sub-committee on standardization, of the committee on investigation, exhibits and surveys, is very significant in its grasp on analysis and counseling in schools. The association has rendered a real service to the schools, particularly in view of the fact that there has been no provision by the school system for coöperative study of its guidance problems.

REPORT OF THE JUNIOR EMPLOYMENT SERVICE

January 1, 1920, to December 31, 1920

| | Boys | Girls | Total |
|---|---|---|---|
| Registrations* | 1,278 | 1,052 | 2,330 |
| Employers Applications | 1,255 | 1,989 | 3,244 |
| Number of persons referred to positions* | 1,246 | 905 | 2,151 |
| Total number of references to positions | 1,571 | 1,095 | 2,666 |
| Placements reported | 634 | 564 | 1,198 |
| Total number of interviews* | 3,456 | 2,579 | 6,035 |
| Part-time and summer registrations | 377 | 238 | 615 |
| Part-time and summer placements | 76 | 99 | 175 |
| Referred to the Junior Employment Service by the White-Williams Foundation | 31 | 64 | 95 |
| Referred to White-Williams Foundation | .. | 3 | 3 |
| Placed for White-Williams Foundation | 11 | 26 | 37 |
| Referred by Attendance Officers | 182 | 147 | 329 |
| Referred by Schools | 106 | 152 | 258 |
| Referred by Certificate Department | 284 | 244 | 528 |
| Referred by Social Agencies | 67 | 75 | 142 |
| Referred to Social Agencies | 10 | 9 | 19 |
| Referred by Y. W. C. A. Employment Department | .. | 19 | 19 |
| Referred to Y. W. C. A. Employment Department | .. | 11 | 11 |
| Referred by Y. M. C. A. Employment Department | 9 | .. | 9 |
| Referred to Y. M. C. A. Employment Department | 5 | .. | 5 |
| Referred by State Employment Bureau | 13 | 6 | 19 |
| Referred to State Employment Bureau | 7 | .. | 7 |
| Referred to Day School | 16 | 36 | 52 |
| Admitted to Day School | 14 | 14 | 28 |
| Referred to Evening School | 3 | 5 | 8 |
| Admitted to Evening School | .. | 2 | 2 |
| Follow-up Cards sent | 202 | 284 | 486 |
| Responses to Follow-up Cards | 61 | 107 | 168 |
| Parents in Office | .. | .. | 739 |
| Employers in Office | .. | .. | 131 |
| Visits to Schools | .. | .. | 55 |
| Visits to Employers | .. | .. | 161 |
| Other visits | .. | .. | 92 |
| Talks to Schools | .. | .. | 19 |
| Talks to Other Groups | .. | .. | 11 |

**The Junior Employment Service.—General Statement.** The Junior Employment Service, with offices in the building occupied by the Department of Compulsory Attendance and under its direction,

* A person is a registrant but once. When he applies at the office several times during the same month he is counted under "total number of interviews." A person is referred to a position when he is sent with a card of introduction to an employer who has an opening listed with the Junior Employment Servcie.

includes a secretary in charge of placement, two counselors for girls, one of whom is on half-time, one counselor for young men, and one clerk. These are all loaned by the White-Williams Foundation, which pays their salaries. While this staff is under the Employment Supervisor of the Board of Public Education, the time of the latter is given almost entirely to details of employment certification, owing to pressure of this work on the attendance office.

The Junior Service activities assist young people of both sexes up to 21 years of age and considerable time is given to counseling in which immediate placement is not contemplated. While the offices of the Service are adjacent to those for employment certification, children applying for certificates are not required to clear through the Junior Employment Service.

A statistical summary of the work done during the twelve months ending December 31, 1920, is given by the Director of Compulsory Education as shown in table on page 261.

**Analysis, Counsel, Placement, and Follow-up.** No general intelligence or trade tests are given. Cases where mental deficiencies are noticeable from close questioning are referred to a psychological clinic before placement is attempted. Personal analysis usually takes the form of an organized conversational questioning of the applicant for a position or vocational advice, of which a record is made. The form is particularly valuable in providing registration of work desired at successive interviews. The persistence with which a vocational objective is maintained is clearly indicated.

An effort has been made to analyze occupations by members of the staff and by students assigned to the Junior Employment Service for field work. The information obtained, however, has not carried sufficiently into the bureau in form or detail for use by counselors. This is due in part to the lack of provision for occupational detail on the form used and in part to the difficulty of obtaining occupational information relating to a specific job in a given firm.

Counseling is definitely organized, and conducted in a manner to help develop a vocational objective. In the case of some of the younger applicants especially the immediate needs and age limitations require placement in a position that has no definite future. These and other young people are given to understand their limitations, and the desirability of progressive adjustment. During the year 1920, there have been 6035 interviews held at this office with young people from 14 to 21 years of age. Due to lack of information as to previous school and work experience of applicants on one hand, and inadequate information as to the positions offered, on the other, the counseling is at a disadvantage.

Information as to the applicant is contingent in large part on adequate school records, and it is hoped that a future organization of elementary, continuation and high school records will remedy this condition.

Placement has been actively conducted. During the twelve months ending December 31, 1920, the Service has made 1198 placements including those for 175 part-time and summer positions. This figure is approximately one-third the number of applications for positions during that time, including reapplications.

An attempt has been made to conduct follow-up work. This has been largely by telephone and post card. The field work with employers that has been done has been largely to acquaint employers with possibilities for service and to ascertain employment needs and opportunities.

The Junior Employment Service is interested in coöperation with schools. The statistical statement of the Service on a previous page indicates that 258, or one person in nine that registered, were sent by a public, parochial or other school. While it is probable that a considerably greater number than that knew of the Service through the schools, the fact remains that the schools have not been coöperating to the fullest extent. This statement is in agreement with reports from high schools.*

**Central High School.** Previous to this time there has been no one assigned to vocational guidance work, either full- or part-time, in the main building or its two annexes at Seventeenth and Wood Streets, and at Broad and Green Streets. There has just been organized, however, a faculty committee of instructors who are making plans for counseling and placement in addition to their regular teaching duties.

There have been no tests for general intelligence during the past year and no occupational or pupil analysis or records for guidance purposes.

Vocational guidance has not been made a subject for discussion or study in meetings of the faculty, although the advisability of such activities has been discussed in departmental meetings.

During the past year there have been approximately 98 full-time placements made by the school. Of these there were approximately 68 graduates and 30 drop-outs.

In the last year there have been approximately 21 visits made to business houses by the head of the commercial department, and his assistants, for the purpose of correlation of school activities and the placement of graduates. There are no records of this field work, and no home-visitation for the purpose of making possible readjustment for

* There is a direction and introduction card to the Junior Employment Service specially provided by the Board for use by those leaving school. A large number of applicants have been sent by attendance officers, but these are not included in the above, nor can they here be considered the coöperation of schools as such.

those leaving school or those who have left school without reporting to the school office.

Mention should be made of the half-time trade coöperative plan in the Seventeenth and Wood Streets Annex which should be included in a statement of guidance activities. This work, which is described elsewhere, has included numerous visits to plants.

**Frankford High School.** There is no one at this school assigned to vocational guidance activities, either part- or full-time, and the matter has not as yet been a subject for discussion in conferences of the whole teaching staff. While there are teacher advisers, their attention is largely directed to attendance and curriculum.

Little is known of the previous school experiences of incoming pupils. There have been no tests for general intelligence given during the last year. An attempt is made during the senior year to present to the boys and girls some idea of the merits of the more important professions, lines of business, and industry. This is done through auditorium talks and class discussions. In former years there have been some visits to places of work, but these have been largely discontinued.

The school has placed approximately 50 students in full-time work and about the same number in part-time and vacation employment during the past year. Full-time placements have nearly all been of seniors. No appreciable attempt has been made to place students dropping out of school.

There have been about 6 visits by classes, largely commercial students, to places of business during the last year, and about 10 other visits for school purposes by teachers.

There have been no records made of these visits and no follow-up of students who have been placed. A need is felt for home-visitation. The community is largely textile, and home sentiment in certain sections tends to the withdrawal of pupils as soon as they become sixteen, if not before.

**Kensington High School for Girls.** There is an organization of guidance in this school with a vocational counselor assigned part-time from the school faculty, and a home visitor provided for full-time activity by the White-Williams Foundation. Some phase of vocational guidance is usually presented at faculty meetings.

During the last year 600 ninth grade students have been tested. These tests have included Woodsworth and Wells Hand Directions Test, special memory span tests, range of information tests, Witmer's Individual Cylinder Test, the Stanford Revision of the Binet test, and others. These have been given by the vocational counselor and at the

present time are being used to check against school records in the effort to indicate abilities more clearly.

There are 200 copies of Elementary Social Science by Leavitt and Brown, and the same number of Giles' Vocational Civics; 60 copies of Weaver's Vocations for Girls, used as textbooks, and other reference books.

Records are made of conferences, though no special printed forms have been used. The vocational counselor has had approximately 200 conferences with girls during the last year, placed 34 graduates and 16 others full-time, and approximately 25 girls in part-time and vacation work. In addition to these approximately ten have been placed through the Junior Employment Service. Few visits to places of work are made by the counselor. An effort is, however, being made to follow up placements by telephone.

The work of the home visitor began February 1st, and is much needed in this district, largely textile, in view of the tendency to leave school at 16 or before. A statement is made that only one per cent of the parents have attended high school. A very complete record is made by the visitor, who is also a physician, on a form provided by the White-Williams Foundation. The coördination of home visiting with vocational counseling can be made very valuable in this school.

**Germantown High School.** There is no one at this school assigned to vocational guidance and the subject has not been discussed at meetings of the faculty. Little is known of incoming pupils. There have been no tests for general intelligence given during the last year, or other analysis of children, except that through personal conferences with teachers and with advisers, of whom there are eight.

An attempt is made to study vocations during the senior year, when students eligible may join the engineering or the commercial clubs composed of members of the student body. In the two commercial clubs there are 25 young men and 30 girls. In the engineering club there are 60 young men. These activities, however, do not serve the many that enter the school but do not attain the senior year. There is no vocational civics being given, and there are no books on vocational guidance, or occupational studies as such, in the school.

There have been approximately 100 full-time placements made by the school during the last year. There have been about 25 part-time and vacation placements during the same length of time. There has been no follow-up of school placements.

**The Philadelphia High School for Girls.** There is no organized vocational guidance program in this school and no one assigned to such work. A large number of the pupils entering expect to become teach-

ers, and those electing commercial subjects are transferred to the William Penn High School at the end of the first year. Guidance has been largely in the selection of courses of study most adapted to college and normal entrance requirements.

During the last year an analysis of 225 incoming children has been conducted by the University of Pennsylvania, using the Van Wagenen American History Scale. Elementary school records have not been obtained.

Guidance in matters pertaining to choice of courses and personal character has been given careful study and put on a record basis.

There is approximately one adviser for every 63 girls and the personal counseling is organized under a chairman.

No course in vocational civics is given. The reference library contains copies of the following:

Gile's Vocational Civics.
Occupational Reports, Philadelphia Chamber of Commerce.
Bulletins of the U. S. Department of Labor.
Bulletins of Bureau of Occupations for Trained Women (New York City).

There have been no placements of girls in full-time, part-time, or vacation work.

**Northeast High School.** There is no organized vocational guidance work here and the subject has not been brought up in conferences of the faculty. The Otis test was given by a history teacher in January, 1920, to approximately 175 boys comprising the higher half of the freshman year (Class G) in the commercial and academic groups, and checked as far as possible with school performance. Since then, February 3, 1921, all the incoming pupils, approximately 600, have been given Standard Intelligence Examination Delta 2. An attempt at pupil analysis has been made through personal conferences with advisers, of which there is one for 30 boys.

There have been approximately 38 full-time placements made by the school, two-thirds of these being graduates. There have been approximately 18 part-time and vacation placements. Visits to firms have been made by the school engineering club, which is composed of high school seniors, to which class it is limited. There is little follow-up of students who have left the school.

**South Philadelphia High School for Girls.** Vocational guidance activities are definitely organized, with two members of the teaching staff assigned part-time. A vocational counselor, head of the history department, divides 24 periods a week between supervision of the

department and counseling. The teacher in charge of the school roster is also the school visitor, giving about half her time to the latter. Elementary schools in the district are visited by both the counselor and school visitor, in an effort to effect the best possible transition to the high school.

Incoming pupils are being given the Myers Mental Test by the head of the science department. During September there were approximately 295 children tested and on January 31, 1921, 405. These tests were used to divide the pupils into fast and slow groups. As a result of these tests a number of pupils have received special counseling.

Self-analysis is conducted largely through conferences and English composition. There is a close correlation of civics and vocational guidance as the counselor is in charge of both. She has prepared studies of 25 leading occupations for girls in Philadelphia, based in part on field work. There are the following books in the school:

| | |
|---|---|
| Vocational Civics, Giles | 200 copies |
| Vocations for Girls, Weaver | 40 " |
| Social Science, Leavitt & Brown | 6 " |
| The Girl and the Job, Hoerle & Salzberg | 1 " |
| Philadelphia Chamber of Commerce Occupations | 1 set |
| Consumers' League pamphlets | 1 " |
| U. S. Department of Labor and Federal Board publications (incomplete) | 1 " |

Vocational civics is required of all incoming freshmen, and for the first half of the term a study of occupations is made. This includes: first, reasons why every able-bodied adult should be engaged in some kind of employment; second, a discussion of the fundamental requirements in all kinds of work; third, a general study of occupations, and later a more intensive study of occupations open to girls, in the latter beginning with those in which girls are most interested.

The second half of the ninth grade is occupied in relating the pupil, in his social and economic life, to the community.

The fourth year social science, also under the direction of the counselor, is spent on the problems of child labor and women in industry, the effects of this labor on the individual, on society, the reasons for it, and regulation through legislation.

Information received from employers, and from girls in positions, is passed on to instructors of vocational civics, to the head of the English department, to the head of the commercial department, and occasionally to the head of the mathematics department, in order that the criticisms of business men and women may be effective in the training of those still in school.

The following is a report of the school visitor for the month of September, 1920:

THE REPORT OF THE SCHOOL VISITOR
THE SOUTH PHILADELPHIA HIGH SCHOOL FOR GIRLS
September 9 to November 2, 1920

The Eighth Grade teachers in sixteen grammar schools were visited for two reasons: first, we felt the need of an actual contact between the faculties of the grammar and high schools; and, second, we wished to find out where special consideration was desirable for particular girls. Such of this information as we deemed advisable was given to the teachers of the girls.

Visits to the houses were made among three classes of girls: (a) those who entered high school and later left; (b) those who were promoted to high school, but did not come; (c) a few who did not register to come to high school.

| | |
|---|---|
| Number of girls reported to the visitor as leaving | 266 |
| Number of calls made in the homes of the girls | 89 |
| Number of girls interviewed in school only | 52 |
| Number of girls interviewed in school and followed up by visit to the parents | 11 |
| Number of girls approached by letter | 16 |
| Number of girls dropped without a visit, interview or letter | 109 |
| Number of girls induced to return to school | 15 |
| Of cases investigated, number of girls returned is (per cent) | 9.55 |
| Number of girls who were actually working | 83 |
| Number of these girls who were enabled to return by securing work after school and on Saturdays | 2 |
| Number of girls who were attending the | |
| Business Colleges, Day Course | 28 |
| Business Colleges, Evening Course | 15 |
| Of cases investigated, the Business Colleges have enrolled in their Day Courses (per cent) | 17.8 |

REASONS FOR LEAVING SCHOOL

| Cause | Number Leaving School | Per Cent | Number not Returned | Number Returned |
|---|---|---|---|---|
| Poverty | 62 | 20.0 | 57 | 5 |
| Lack of interest | 54 | 17.4 | 49 | 5 |
| Needed at home | 12 | 3.9 | 10 | 2 |
| Indifferent parents | 20 | 6.4 | 18 | 2 |
| Enrolled elsewhere exclusive of business college | 13 | 4.2 | 13 | 0 |
| Removed | 17 | 5.5 | 17 | 0 |
| Discouraged | 7 | 2.3 | 4 | 3 |
| Sick | 13 | 4.2 | 11 | 2 |
| Deficient in academic standing | 112 | 36.1 | 112 | 0 |

Some girls had two or more reasons for leaving school. Those not interviewed at all were deficient in academic standing.

Employment record forms provided for the schools by the administration office are used. Approximately 1000 personal conferences are reported for the last year by the counselor. There were approximately

50 full-time placements by the school direct during the year, 40 of them being seniors, all over 16 years, and 250 part-time and vacation placements. In addition to these there were 10 full-time and 25 part-time and vacation placements made through coöperating bureaus. The counselor made 65 visits to firms. An effort is made to follow-up each placement with a post card addressed to the home.

**South Philadelphia High School for Boys.** There is no vocational guidance program in this school, and the matter of guidance has not been under discussion in faculty conferences. There have been no intelligence tests during the last year. Self-analysis and counseling has been through conferences with teachers and advisers, of which there are 50 or on an average of about one for 36 boys. The work of these advisers, however, is largely concerned with attendance. In addition to these advisers there is a financial committee, a personal committee, and a students' aid committee composed of teachers.

The school has one copy each of the following in its library: Readings in Vocational Guidance, Bloomfield; Vocational Civics, Giles; The Science and Art of Salesmanship, Hoover; Advertising, Its Principles, Practice, and Technique, Starch; The New Civics, Ashley. Vocational Civics is not given. Civics classes have included visits to two industrial plants.

Excepting a number of graduates there has been no placement work done during the year ending December 31st, either full-time, or part-time and vacation. There have been no visits to firms desiring to employ pupils, either those dropping out, or graduates, during the year ending December 31, 1920, and no follow-up of those at work.

**The West Philadelphia High School for Boys.** While there has been no definitely organized vocational guidance in this school, up to February 7, 1921, when a teacher is being made vocational counselor with the expectation of several periods a week being given later for this work, a start has been made in several phases of vocational guidance, including placement. A coördination of these has been lacking, and the matter of vocational guidance has not yet been presented at meetings of the entire faculty for the purpose of such coördination.

No general intelligence tests have been used during the last year. The Courtis Arithmetic Test, Series B, Form 2, however, was given in September, 1920, to all the incoming boys, approximately 500, by the department of mathematics in coöperation with the research committee of the school. Pupil analysis has been conducted mainly through conferences with teachers and advisers, of whom there are approximately one for 40 students. The attention of these, however, has largely been given to attendance. Vocational civics is not being given, and study of

occupations, as such, has not been given elsewhere. There are no vocational guidance books in the school.

There were 45 graduates placed during the year ending December 31, 1920, and in addition approximately 100 part-time and vacation placements made by the school direct. There has been little visiting of places of work, or follow-up of students.

**William Penn High School.** There is an organization of vocational guidance in this school with a teacher assigned to 22 periods a week for the work. This time has been obtained through a heavier teaching load of other instructors. There is an attempt to coördinate guidance activities throughout the school and there have been discussions of these problems at faculty meetings.

There have been no general intelligence tests conducted in this school during the year ending December 31, 1920. Self-analysis has been introduced to a certain extent through conferences, vocational civics, English composition, and in the senior year through social science. Teachers are assigned as advisers, approximately one to 30 girls.

All students in the first term are required to take vocational civics, and the course is used as a prevocational one as far as possible to give the girls some idea as to the occupations open to them, and the preparation necessary. Occupations are analyzed from the standpoint of the work done, what it demands and what it gives, and the pupil's preparation, fitness and interests analyzed in terms of the occupation. A lecture is given once a week to the whole group by a specialist in some occupation or group of occupations. The school has the following books:

| | |
|---|---|
| Vocational Civics, Giles | 384 copies |
| Elementary Social Science, Leavitt & Brown | 134 " |
| Profitable Vocations for Girls, Weaver | 75 " |

One copy each of the following:

The Vocational Guidance of Youth, Bloomfield
Vocational and Moral Guidance, Davis
Talks to Women on Essentials to Success in the Business World, Frazier
How to Get a Position and How to Keep It, Hall
The Child, the School and the Job, Hiatt
Vocations for Girls, Lasalle & Wiley
Choosing a Vocation, Parsons
Vocations for the Trained Woman, Perkins
Publications on Vocational Education (incomplete), U. S. Department of Labor

Records are made during conferences with pupils desiring employment. There are three forms in use: two applications for employment,

and an introduction to the employer. Records are not kept in detail, due in part to lack of clerical assistance.

There have been approximately 200 full-time placements made by the school direct during the past year and an equal number of part-time and vacation placements.

There have been approximately 25 visits to firms employing or desiring to employ school pupils, drop-outs or graduates, during the 12 months ending December 31, 1920. Records of these visits have not been made. In addition to counseling and placement work above described, the vocational counselor has made twelve visits to homes.

**West Philadelphia High School for Girls.** In this school there is a teacher assigned part-time as vocational counselor with time largely given to study hall and roster work, an educational adviser, who is also head of the English department, and the head of the commercial department who assists in advising on commercial occupations. Vocational guidance as such has not been discussed at meetings of the whole teaching staff, but has been taken up in departmental conferences.

There has been no general intelligence analysis of incoming or other pupils during the last year. Self-analysis has been conducted largely through vocational civics and English, no special forms being used. Vocational civics is required of all entering pupils, and lays some stress on occupational analysis, for which purpose each child last year visited three places of work, in addition to a fourth concerning which a special report was made. The school has the following books:

| | Copies |
|---|---|
| Elementary Social Science, Leavitt & Brown | 400 |
| Vocational Civics, Giles | 80 |
| Profitable Vocations for Girls, Weaver | 40 |
| The Real Business of Living, Tufts | 40 |

Records of personal conferences are not made. Seventy-six full-time placements have been made during the last year, and approximately 80 part-time and vacation placements. There have been no counselors' visits to firms employing or desiring to employ pupils, drop-outs or graduates, during the year ending December 31, 1920, and no follow-up activities otherwise.

**Oliver Wendell Holmes Junior High School.** Vocational guidance is being given in this school, although there has been no special provision for vocational counseling. Vocational guidance has been discussed at 6 faculty meetings during the past year.

The head of the English department, with a teaching schedule of 13 periods a week, has charge of Educational Counseling, and endeavors to promote vocational guidance activities in the department. This department has given vocational guidance by means of personal con-

ferences and group discussion, by assigning vocational topics for composition and study, and by means of a large exhibit in the main hallway of the school. The latter is changed several times during the term, and at different intervals lays varying stress on educational and vocational guidance. The school has the following books:

| | Copies |
|---|---|
| Vocational and Moral Guidance, Davis | 6 |
| Vocational Civics, Giles | 6 |
| Occupations, Gowan & Wheatley | 1 |
| Profitable Vocations for Boys, Weaver & Byler | 20 |
| Profitable Vocations for Girls, Weaver | 20 |
| The Science and Art of Salesmanship, Hoover | 12 |
| Choosing a Vocation, Parsons | 1 |
| The Economics of Retailing, Nystrom | 1 |
| Advertising and Selling Practice, Opdyke | 1 |
| The Real Business of Living, Tufts | 6 |
| Seventeenth Annual Report Pennsylvania State Department of Labor | 1 |
| U. S. Population Census (1910) | 1 |
| Bulletins U. S. Department of Labor (incomplete) | .. |
| Philadelphia Chamber of Commerce, Philadelphia Industrial Bulletins | 80 |
| American Railway Transportation, Johnson | 6 |
| Elements of Business, Schoch & Gross | 6 |
| Social Problems, Towne | 12 |

On order from the board of education:

| | |
|---|---|
| Elementary Social Science, Leavitt & Brown | 250 |
| Great Inventors and Their Inventions, Bachman | 6 |
| Industrial History of the U. S., Coman | 6 |
| History of Commerce and Industry, Herrick | 26 |

The teachers in each department aim to discuss the occupational phases of their respective fields, and each department each term is assigned the making of a poster for the bulletin board, illustrating vocations open in their fields.

All the pupils in the school have been tested during the last year. The Monroe reading tests have been given to all seventh and eighth grade pupils. Other tests include the Haggerty, Otis, and Dearborn tests, which are being introduced. No records are made of personal conferences with pupils, of which there have been approximately 200 during the last year. It is estimated that a third of the pupils in the school are employed after school and on Saturdays. There have been approximately 50 full-time placements made by teachers during the last year, 35 of them being of children over 16. Few if any part-time or vacation placements have been made. There have been no visits made to firms, in response to requests for employes or to follow up placements, and no follow-up activities otherwise.

**Philadelphia Girls' Trade School.** In this school vocational guidance activities are centered in a counselor furnished by the White-Williams Foundation, who gives all her time to counseling and field work. These activities have been discussed but little in school faculty meetings.

Little is known of previous school records of pupils and no intelligence tests have been given during the last year except in cases referred to a clinic. Self-analysis is conducted through personal conferences with the school counselor. Occupational analysis is largely confined to trade processes although an attempt is made to include other aspects as well. Records are made of personal conferences.

There have been approximately 500 such conferences during the last year. Each girl in the school has conferred with the counselor twice, from September 1, 1920, to February 1, 1921, and those needing special assistance more often. During this period there were 38 home visits.

There have been 50 full-time placements during the last year, 16 being made through the Junior Employment Service and coöperating agencies. There have been 10 part-time and vacation placements made by the school during this time.

Fifteen firms have been visited during the year. Of these there have been no occupational records made. Other details and recommendations for this school have been given previously in the survey report.

**John S. Hart Continuation School.** Guidance work in this school takes the form largely of personal counseling and home visits of a school coördinator, assigned full-time by the Board of Public Education. There is little counseling done involving a study of occupations or placement. Cases in which pupils are making frequent changes of employment are, however, investigated by the coördinator.

There have been no general intelligence tests given prior to February 1, 1921, and previous school records of pupils have not been obtained. Self-analysis has included little of an occupational nature and there has been no vocational analysis except that of shop processes in school shops. There are no vocational guidance books in the school, and vocational civics is not given.

Records are made of personal conferences with pupils, and successive records are added on the original card. No other form has been developed for conference or field work. During the last year there have been approximately 1300 personal interviews and 70 home visits.*

* The coördinator was assigned to this school in September, 1920. Such work as was done previously was by teachers and principal.

There have been 21 full-time placements made by the school direct for the year ending December 31, 1920. A number of other pupils have been referred to and placed by the Junior Employment Service. There have been 20 visits to employers during that time and notes taken on working conditions.

**The Hollingsworth Continuation School.** This school has a coördinator assigned full-time by the Board of Public Education. The matter of vocational guidance has been presented at one meeting of the faculty during the last year. No intelligence tests have been given during this period, and no previous school records of incoming children have been obtained.

Self-analysis is conducted through personal interviews by the coördinator in English composition and in class discussions. Little attempt is made to analyze vocations. The school library has reference copies of Profitable Vocations for Boys, by Weaver and Byler, and Profitable Vocations for Girls, by Weaver.

Records are made of personal conferences with pupils, of which there have been 300 from September 26, 1920, when the coördinator was assigned, to February 1, 1921. Seventy-five full-time placements were made during this period by the school direct, and 8 in coöperation with the Junior Employment Service. During this time there have been 30 visits to firms employing or desiring to employ pupils, and 32 home visits. No records of visits to places of work have been made.

**The McCall Continuation School.** In this school there is a coördinator assigned full-time by the Board of Public Education, and an effort has been made to correlate the work of this member of the staff with that of other teachers, through faculty discussions and otherwise. An adaptation of the army test has been given to 1456 boys and girls, by teachers in the school. Self-analysis has been conducted mainly through conferences and written composition. An attempt has been made to analyze vocations in these as well as in class discussions. The school has two copies each of Profitable Vocations for Girls, by Weaver, and Profitable Vocations for Boys, by Weaver and Byler.

Records are made of personal conferences, no special forms being used. A summary report of cases is given to the principal.

There have been approximately 470 conferences with children from September 23, 1920, when the coördinator began her duties, to February 1, 1921. In this time there have been 48 home visits made, more than half resulting in sending children to school full-time, the latter including business and trade schools.

Sixty-five placements were made by the coördinator from September 23, 1920, to February 1, 1921, and 93 visits to employers. The

latter were mainly to adjust matters relating to school attendance, working conditions and advancement, the coöperation of employers being obtained in nearly every case. No records were made of places of work during these visits, and no cases were referred to the Junior Employment Service or other bureaus during this period.

**The Elementary Schools.** There is no organized vocational guidance in the elementary schools. There is a movement on the part of a number of principals and the administration looking to scientific analysis of children as to both general and special intelligence. The introduction of vocational civics in the sixth grade throughout the system marks the beginning of an appreciation for the need of occupational study in the schools. The aims of this work in that grade are given as follows: "First, to develop in the child a proper pride in his city because of the important part it plays in the industrial world; second, to give him information that will help him to select wisely an occupation; and, third, to bring him to see the desirability of continuing his education as long as possible so that he may become a more intelligent worker and a better citizen."

With the assistance of the Philadelphia Chamber of Commerce, 16 pamphlets on various Philadelphia occupations have been given to each elementary school.

There has been no organized placement activity in the elementary schools except in coöperation with the Department of Compulsory Education. In the latter, approximately 419 boys and girls have been placed by attendance officers, nearly all from the elementary schools, and, in addition to these, 258 boys and girls referred to the Junior Employment Service, also largely from elementary schools. Such follow-up as is being done for elementary school pupils that have left school is done by the latter, and by such teachers and principals as have had a personal interest in these boys and girls and made subsequent inquiries concerning them.

**Philadelphia Normal School.** No study of guidance or counseling as a course of instruction is given in this school. The guidance of the normal students attending, however, is given attention. Intelligence tests are applied to all students entering and both general and special tests are subsequently taken and given by normal students in an effort to familiarize them with their use.

In the sociology department the backgrounds of conditions of work are studied, including women in industry, child labor and coöperative movements, and special problems as they apply to Philadelphia. The need for teacher guidance is emphasized. Aside from group visits, each student is required to make one visit to a center in which the problems

of child labor are evident, such as the Bureau of Compulsory Attendance, the White-Williams Foundation, etc.

Philadelphia industries are studied with particular view to teacher guidance and instruction.

In economics, the problem of occupations and occupational guidance is treated largely under the topic, "What shall I do for a living?" The laws of supply and demand are considered particularly in relation to placement and opportunities for advancement, as is the organization of industrial and mercantile concerns. No records have been made of the number of field work visits.

**Girard College.** This school comes into a closer personal contact with students than ordinarily obtains and is well organized for guidance activities. It has a department of admission and discharge, a committee on vocational guidance, and faculty reports and conferences along guidance lines.

Analysis of occupations is provided for in their vocational instruction and supplementary studies. The plan of vocational guidance provides for as wide a range of occupational try-outs as possible for the years 13 to 16. In the latter year the vocational work narrows down to one occupation, which is decided upon after conferences with instructors and a final conference of the boy with the vice-president.

During the twelve months ending December 31, 1920, there were 178 full-time placements by the school direct, and 8 through coöperating agencies. Follow-up work during the last year has included visits to approximately 600 places of work.

## GENERAL CONCLUSIONS WITH REFERENCE TO TRADE AND INDUSTRIAL EDUCATION

At a recent graduating exercise at Central High School, degrees were refused those members of the class who had taken the industrial course. Trade and industrial education should be an integral and indispensable part of a democratic scheme of public education in Philadelphia.

Any scheme of education that makes for class distinction is undesirable. In the country at large vocational education has come to be recognized as a necessary part of public education, having coördinate rank with traditional forms of education.

Young people need to be taught for service rather than for leisure. They need to be impressed with the dignity of manual labor, whether they expect to perform such labor or not. The Board of Education can promote right ideals and democratic relationships among all pupils by public recognition, through graduating certificates and otherwise, of the

fact that vocational education is a desirable part of public education, and that it has cultural values equivalent to those of the traditional school subjects.

Trade and industrial education is the birthright of those citizens of Philadelphia who expect to follow, or who are engaged in industrial pursuits The city is known as the birthplace of democracy and the nation's first capital. We submit that democracy in education is characterized by "equivalent" as distinguished from "equal" educational opportunities, and that no stone should be left unturned in the effort to provide the kinds of trade and industrial education that are needed by the thousands of producers working in Philadelphia's great and varied industries.

Vocational education does not conflict with general education. One merely supplements the other. A certain amount of general education should be given all pupils who are mentally and physically fit, irrespective of sex or economic considerations. Following this, and as a culminating part of the educative process, every individual should have some form of vocational education, for the primary purpose of education is not to make human sponges who merely absorb a lot of knowledge. The dominant and controlling aim in modern education is to equip persons to act, to produce mental and physical things that help to support, promote, and perpetuate the desirable ideals and institutions of society.

The kinds and the character of trade and industrial education that are to be undertaken should be based on the changing industrial needs of the community. In order that this may be realized we recommend that continual contact be maintained with the industries through local advisory and local survey committees, whose function it shall be to correlate closely school and industrial activities.

With the exception of certain trades and industries upon which there now is a body of common knowledge, the complex industrial needs of Philadelphia are not known. Detailed, thorough, and scientific studies in large numbers need to be made in Philadelphia by persons who are sympathetic with the aims of such studies, and who have the ability to get results. Educational committees, and individuals in specific industries who take an unusual interest in the promotion of educational matters pertaining to particular vocations, should always be consulted and their aid as well as those of other agencies should be enlisted.

Coöperation is particularly needed in educational matters since the product is not so easily evaluated as it is in many kinds of business, and since competition to keep means and methods abreast of the times is not present in education to the extent that it is in industry. The success or

failure of trade and industrial education in the city will depend upon the extent to which the school people work through, coöperate with, and win the confidence of, those who are directly concerned with the problems of manufacture and production.

Philadelphia offers a promising field for vocational education. As soon as the opportunity and the responsibility that such opportunity naturally carries with it become generally accepted by the citizens of this metropolitan district, it is felt that rapid progress will follow. Good work has been done, and has recently been undertaken as a result of the Survey, even while the latter was in progress. The city has long prided itself upon the general education that has been offered. It is felt that it will now take an equal pride in developing thoroughly practical courses in trade and industrial education of many kinds in order that it may adequately develop natural resources, and may conserve, and use to the fullest, human efforts and resources.

## RECOMMENDATIONS CONCERNING THE ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL EDUCATION

**Clear Determination of Responsibility.** It is an accepted fact in good business, as well as in good school administration, that responsibilities be accurately defined and clearly understood. As regards the present organization for industrial education it is evident that there is too much overlapping of functions, to which may be added lack of clarity relative to the nature and scope of delegated responsibilities. In certain matters various high schools of the city have apparently been laws unto themselves. The Director of Vocational Education through tactful procedure has made progress in developing a unity of feeling among the various department heads of the high schools, but it is our belief that the Director's supervisory and administrative authority over the high schools as a whole needs to be strengthened by a clear understanding that he is in charge of public vocational education in the city.

**Relationship and Title.** To develop the right kinds of industrial education for the thousands of youths and of adults of Philadelphia who have an inherent right, and an urgent need for the same, is a large undertaking worthy of the mettle of a most capable director. A clear definition of his responsibilities is helpful, but more is necessary. The very nature of industrial education, ever-changing as it must be to meet new demands and circumstances arising in industry, demands that there be direct and speedy contact between the Director and the Superintendent of Schools. To facilitate this, and in order that this phase of education may get the recognition that its importance in the work-a-day world

demands, we recommend that the Director of Vocational Education be given the responsibility and the official title of "Associate Superintendent of Schools in charge of Practical Arts and Vocational Education."

The following diagram (Diagram A) shows the present organization as regards administrative and supervisory relationships. As long as high school principals are placed on an equal footing with Associate Superintendents, as is indicated by Diagram A (which is reproduced from a chart presented by the Director of Vocational Education at the University of Pennsylvania), just so long will it be extremely difficult to develop that clear-cut administrative and supervisory responsibility that is essential to the promotion of industrial education in the city.

A more desirable organization for purposes of practical arts, and of vocational education is shown in Diagram B. It will be noticed that the Associate Superintendent in charge of practical arts and vocational education holds, as far as these forms of education are concerned, a position above principals of high schools. The latter are independent of him in many ways but there must be no question as to the proper nature and scope of their respective responsibilities.

The relationship between the practical arts and the vocational education staffs on the one hand and the high schools on the other that should exist is shown in Diagram C.

Diagrams B and C show a form of desirable relationships for purposes of effective administration. It is clear, however, that personalities will be vital factors. The proposed organization calls for a director of vocational education having the rank and title of associate superintendent. His major efforts should be administrative. His worth as an administrator will be judged largely by his ability to surround himself with capable coworkers to whom responsibility will be delegated wisely, and through whom he can organize and supervise the many kinds of practical arts and vocational education that are needed, in order to give a square deal educationally to those whose capacities, interests and ambitions lead them into vocational pursuits.

## RECOMMENDATIONS CONCERNING TYPES OF INDUSTRIAL EDUCATION

**All-Day Instruction.** A serious handicap to the development of all-day trade instruction in Philadelphia is the lack of an adequate vocational school building. This is discussed in detail elsewhere in this report. The structure at Seventeenth and Wood Streets used for industrial education is a discredit to an industrial city like Philadelphia. All-day instruction in industrial education is sure to be in demand at all times in Philadelphia and it should be provided for in conformity with the service it can render to the community.

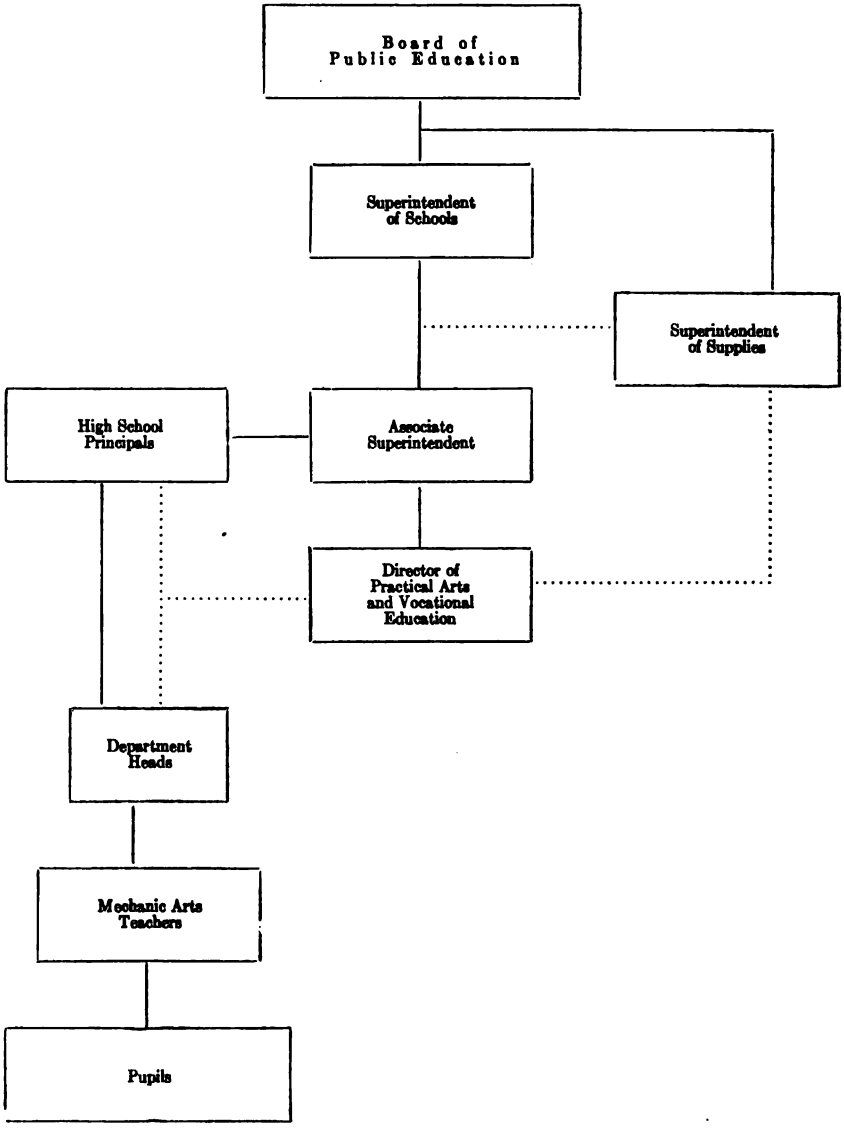



DIAGRAM A.—SHOWING PRESENT ADMINISTRATIVE AND SUPERVISORY RELATIONSHIPS

Note that high school principals appear to be of coördinate rank with the associate superintendent.

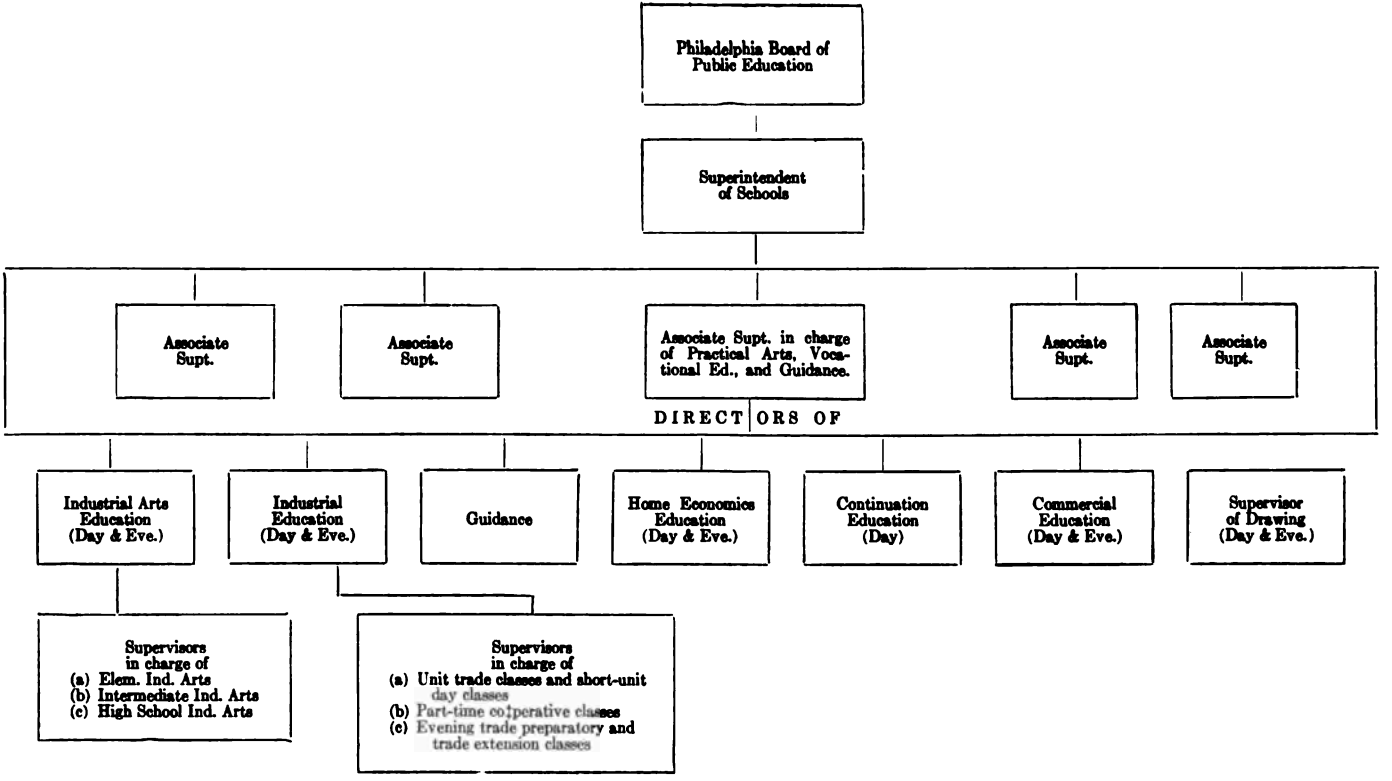

Philadelphia Board of Public Education
Superintendent of Schools
Associate Supt.
Associate Supt.
Associate Supt. in charge of Practical Arts, Vocational Ed., and Guidance.
Associate Supt.
Associate Supt.
DIRECTORS OF
Industrial Arts Education (Day & Eve.)
Industrial Education (Day & Eve.)
Guidance
Home Economics Education (Day & Eve.)
Continuation Education (Day)
Commercial Education (Day & Eve.)
Supervisor of Drawing (Day & Eve.)
Supervisors in charge of
(a) Elem. Ind. Arts
(b) Intermediate Ind. Arts
(c) High School Ind. Arts
Supervisors in charge of
(a) Unit trade classes and short-unit day classes
(b) Part-time cooperative classes
(c) Evening trade preparatory and trade extension classes

DIAGRAM B.—SHOWING THE ORGANIZATION RECOMMENDED FOR PRACTICAL ARTS, AND VOCATIONAL EDUCATION

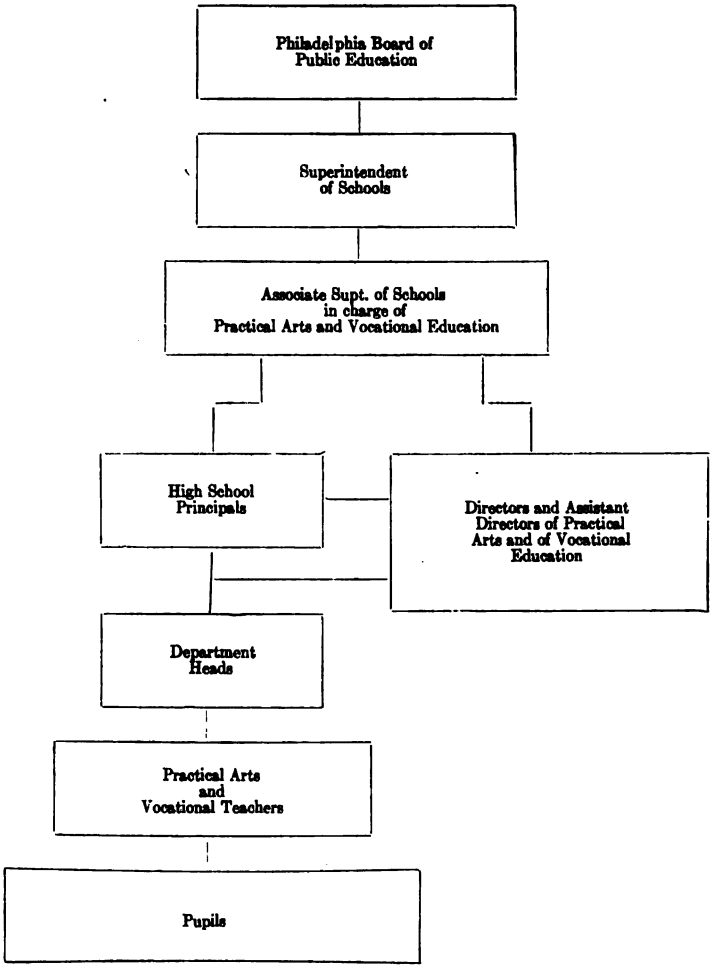

Philadelphia Board of Public Education
Superintendent of Schools
Associate Supt. of Schools in charge of Practical Arts and Vocational Education
High School Principals
Directors and Assistant Directors of Practical Arts and of Vocational Education
Department Heads
Practical Arts and Vocational Teachers
Pupils

DIAGRAM C.—SHOWING THE PROPOSED RELATIONSHIP BETWEEN PRACTICAL ARTS AND THE VOCATIONAL EDUCATION STAFF, AND THE HIGH SCHOOLS

No delusion is held by the survey staff relative to the splendid space and equipment given over to shop work in the various high schools of the city. As at present given, the Mechanic Arts work does not measure up to the standards set by the Federal Board for Vocational Education for real industrial education. There should be a six-hour day for vocational instruction and the shop work should be given on a productive, though not necessarily on a commercial, basis.

**Part-time Instruction.** The Board of Education is to be commended for having recently started part-time coöperative instruction. This

form of industrial education because of its newness in the city, deserves the united support of the Board of Education.

Employers are more likely to consider the plan when they find out that it is indorsed and backed by the Board of Education; that part-time coöperative education has proved successful in a number of states including Pennsylvania, and that the plan is certain to result in better trained employees, and in a better commercial product.

Desirable as all-day instruction is, it must be recognized that only a small per cent of prospective workers can avail themselves of such education. The only way to reach the mass of youths and of adults is through part-time instruction and through evening classes.

Part-time industrial education given during slack seasons should receive the hearty support of all persons interested in trade instruction for vocations having a more or less distinct slack season. The proper use of such slack-season time is of considerable social, as well as economic, importance.

In order that this form of trade instruction may be brought to the attention of employers and employees in the city, and in order that it may develop as it needs to, it is indicated on the diagram under "Recommendations concerning the organization and administration of Industrial Education" that there should be a person on the staff of the Associate Superintendent of Schools in charge of Vocational Education, who is charged directly with the development of part-time industrial education.

**Evening Instruction.** Philadelphia has made relatively better provision for evening trade-extension industrial education than she has for any other form of trade instruction. No other form of industrial education can in the next decade or two reach the number of persons engaged in industry that can be brought to the evening schools. We shall have to depend very largely upon evening trade extension instruction to reach helpers, apprentices, journeymen, and foremen who wish to get additional skill and knowledge of their trade.

Evening trade extension classes may be held one, two or three evenings per week, for as many weeks as circumstances warrant. They may be held in industrial plants as well as in school buildings. Workers often prefer to take instruction immediately after their work-day closes —say, from five o'clock until six—in the plant where they can attend conveniently and unabashed in overalls and jumpers, without first having to go home and get "dressed up," as many feel they need to for classes held in high schools.

The effectiveness of evening trade extension instruction can in some cases be increased by organizing the instruction in unit courses which

are arranged in a progressive series. The learners can take as many or as few of such courses as their interest, capacity, and time warrant.

## SPECIFIC CONCLUSIONS WITH REFERENCE TO TRADE AND INDUSTRIAL EDUCATION

### Types of Industrial Education Recommended for Certain Vocations

1. Auto Mechanics
   - a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or evening trade extension courses.
   - b For apprentices:
     - (1) Part-time coöperative trade extension courses.
     - (2) Evening trade extension courses.
   - c For journeymen: Evening trade extension courses.
   - d For foremen: Evening conferences for foremen.
2. Boilermakers
   - a For apprentices: Evening trade extension courses.
   - b For journeymen: Evening trade extension courses.
   - c For foremen: Evening conferences for foremen.
3. Blacksmiths
   - a For boys in schools: Two-year all-day trade preparatory courses followed by part-time coöperative, or evening trade extension courses.
   - b For apprentices:
     - (1) Part-time coöperative trade extension courses.
     - (2) Evening trade extension courses.
   - c For journeymen: Evening trade extension courses.
   - d For foremen: Evening conferences for foremen.
4. Carpenters
   - a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
   - b For apprentices:
     - (1) Part-time coöperative trade extension courses.
     - (2) Evening trade extension courses.
     - (3) Slack-season trade extension courses.
   - c For journeymen:
     - (1) Evening trade extension courses.
     - (2) Slack-season extension courses.
   - d For foremen: Evening conferences for foremen.
5. Cement and Concrete Workers
   - a For helpers or apprentices: Evening trade extension courses.
   - b For journeymen: Evening trade extension courses.
   - c For foremen: Evening conferences for foremen.

6. Dock Builders:
   a For helpers or apprentices: Evening trade extension courses.
   b For journeymen: Evening trade extension courses.
   c For foremen: Evening conferences for foremen.
7. Draftsmen
   a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative or by evening trade extension courses.
   b For draftsmen regularly employed: Evening trade extension courses.
8. Electricians (Building Trades)
   a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
   b For apprentices:
      (1) Evening trade extension courses.
      (2) Part-time coöperative trade extension courses.
      (3) Slack-season trade extension courses.
   c For journeymen: Evening trade extension courses.
   d For foremen: Evening conferences for foremen.
9. Electrical Constructors
   a For apprentices: Evening trade extension courses.
   b For journeymen: Evening trade extension courses.
   c For foremen: Evening conferences for foremen.
10. Elevator Constructors
   a For apprentices: Evening trade extension courses.
   b For journeymen: Evening trade extension courses.
   c For foremen: Evening conferences for foremen.
11. Foundrymen
   a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
   b For apprentices:
      (1) Part-time coöperative trade extension courses.
      (2) Evening trade extension courses.
   c For journeymen: Evening trade extension courses.
   d For foremen: Evening conferences for foremen.
12. Machinists
   a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
   b For apprentices:
      (1) Part-time trade extension classes.
      (2) Evening trade extension classes.

c For journeymen: Evening trade extension classes.
d For foremen: Evening conferences for foremen.

13. Metal Platers
    a For apprentices: Evening trade extension classes.
    b For journeymen: Evening trade extension classes.
    c For foremen: Evening conferences for foremen.
14. Painters and Decorators
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
    b For apprentices:
        (1) Part-time coöperative trade extension courses.
        (2) Evening trade extension courses.
        (3) Slack-season trade extension courses.
    c For journeymen: Evening trade extension courses.
    d For foremen: Evening conferences for foremen.
15. Patternmakers
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative trade extension courses, or by evening trade extension courses.
    b For apprentices: Part-time coöperative trade extension courses or evening trade extension courses.
    c For journeymen: Evening trade extension courses.
    d For foremen: Evening conferences for foremen.
16. Plasterers
    a For apprentices: Evening trade extension courses.
    b For journeymen: Evening trade extension courses.
    c For foremen: Evening conferences for foremen.
17. Printers
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or evening trade extension courses.
    b For apprentices:
        (1) Evening trade extension courses.
        (2) Part-time coöperative extension courses.
    c For journeymen: Evening trade extension courses.
    d For foremen: Evening conferences for foremen.
18. Plumbers and Steam Fitters
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
    b For apprentices:
        (1) Part-time coöperative trade extension courses.
        (2) Evening trade extension courses.

c For journeymen: Evening trade extension courses.
d For foremen: Evening conferences for foremen.

19. Sheetmetal Workers
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
    b For apprentices: Evening trade extension courses.
    c For journeymen: Evening trade extension courses.
    d For foremen: Evening conferences for foremen.
20. Structural Iron Workers
    a For apprentices: Evening trade extension courses.
    b For journeymen: Evening trade extension courses.
    c For foremen: Evening conferences for foremen.
21. Toolmakers
    a For boys in school: Two-year all-day trade preparatory courses followed by part-time coöperative, or by evening trade extension courses.
    b For apprentices:
        (1) Part-time coöperative trade extension courses.
        (2) Evening trade extension courses.
    c For journeymen: Evening trade extension courses.
    d For foremen: Evening conferences for foremen.

NOTE.—The term "apprentices," and the term "journeymen" as used in the preceding recommendations are used broadly. By the term apprenticeship is meant persons actually indentured by written or by oral agreements as well as persons simply "learning the trade" or "learning the job" in vocations in which no apprenticeships exist. In like manner the term "journeymen" is used to designate persons who have mastered their work, whether it be in a trade in which apprenticeship conditions obtain or not.

In the evening conferences for foremen mentioned, there may be discussion and instruction bearing on various phases of job analysis, shop organization, shop administration, means and methods of recruiting, training, and promoting employees, and of other supervisory or managerial functions delegated to foremen.

### RECOMMENDATIONS CONCERNING THE GIRLS' TRADE SCHOOL

The following suggestions are submitted relative to the Girls' Trade School:

1. The Trade School for Girls should be conducted as a separate organization within the public school system, maintaining instruction on the basis of a six-hour day, at least one-half of which is devoted to trade instruction on a useful and productive basis.

2. The possibility of maintenance of the present site should be considered to serve the interests of the colored workers who are now applying for admission in greater numbers than can be accommodated.

3. The selection of a central location should be considered in which day, part-time, and evening classes for wage-earners and prospective wage-earners could be organized. Instruction should be offered in trade and industrial occupations and their related commercial branches, such as cost accounting and salesmanship in connection with millinery and dressmaking.

4. The program of instruction should be expanded to meet the needs of any group of juvenile or mature workers, however short the period of preparation for successful entrance to employment or reëmployment might be.

5. The trade school should maintain continuation classes in those trades or occupations for which it is already giving initial training.

6. The trade school should have a guidance and placement bureau organized as part of a centralized service of the public school system.

7. An investigation should be made to determine the opportunities for employment in food trades and the advisability for instituting trade instruction for the same.

8. Advisory committees from trades, including representation of the employer and the employees, should be appointed for each trade taught.

9. The teaching staff should be strengthened by the addition of instructors whose experience and training would enable them to execute the work in harmony with the vision and ideals of the principal in charge.

10. The school should be given a budget for supplies in order to buy in the most economical manner, this outlay to be eventually returned to the Board of Education in a credit account from the sale of productive work.

11. The system of records and reports should be reduced to a simple minimum necessary for administration.

Inasmuch as Philadelphia has tremendous hospital facilities, the following possibilities for coöperating in the training of nurses will be of local interest in the consideration of a plan of trade and industrial education for girls and women:

Nurses in training for hospitals may receive technical instruction in dietetics and chemistry in classes organized under public school supervision. This instruction may be classed as part-time or evening, according to whether it is given during or after the regular hours of the working day as scheduled. It may be subsidized from trade and industrial funds.

## RECOMMENDATIONS CONCERNING TRADE SCHOOLS FOR MEN AND BOYS

Theoretically, the plan of giving all industrial education for boys in Philadelphia in the high schools of the city has much to commend itself. Practically, however, this plan involves a number of difficulties.

First, industrial education, because of the shop and laboratory work that is involved, should command at least a six-hour day. This is a longer school day than the high schools have but no longer than they ought to have. Pupils in the same school expect to have the same length of school day irrespective of the kind of course they are pursuing. A six-hour or a six-and-one-half-hour day can be most easily put into effect by having separate industrial schools for men and boys just as there now is one for girls and women.

Second, shop work on a productive basis is essential to real practical industrial education. The practical work done in schools should measure up to trade standards, and should be done in an efficient, workmanlike manner. This means that teachers of industrial education must be master workmen in their trade, as well as have teaching experience and professional training. Thorough trade experience, though desirable, is not so necessary for teachers of industrial arts (mechanic arts) education as it is in industrial education. Hence teachers of the industrial arts (mechanic arts) in high schools may be well qualified for such work and yet not have the thorough up-to-date knowledge of a trade that is required for trade teachers. If separate trade schools were built for men and boys in Philadelphia the teachers could be selected to meet the special requirements for trade teachers, and only such teachers might be employed for this purpose as hold the unqualified support and confidence of persons in industry.

Third, industrial education, growing and rapidly changing as it must be to keep abreast of industrial development, needs the guidance and support that can be given by a principal of a trade school, whose sympathy, training and experience mark him as one who preëminently has his heart in the cause of those who labor in industry.

It is not to be inferred that the survey staff feel that effective all-day industrial education cannot be given in the regular high schools, but it is felt that there is grave danger that such work if left to the general high schools will be dominated by the ideals that properly obtain for industrial arts (mechanic arts) as distinguished from vocational industrial education. Both forms of education are highly desirable, but it should be clearly understood and ever kept in mind that industrial arts (mechanic arts) education is a phase of general education. It is a forerunner for industrial education; it should provide vocational guidance opportunities, and so serve as education that is related to industrial education, but it is not industrial education as defined by the Smith-Hughes Act.

In devising ways and means of meeting the need for increased school facilities, the Board of Education should give careful consideration to the suggestion made bearing on the need for vocational industrial schools for men and boys.

### RECOMMENDATIONS CONCERNING EXTENDED USE OF THE SCHOOL PLANT

It is possible for a community to get a far greater return in terms of useful service from school plants than that ordinarily rendered by the public day school which is in session but few hours a day, two hundred days in the year.

There is a large group of boys who leave school early and who consequently do not receive the contribution a high school can make. These boys enter employment and gradually come to a realization that more schooling is essential to their best interest on the job.

The schools of Philadelphia have taken cognizance of this need, and continue to offer each year evening trade extension courses for which there is a ready demand.

The success of this work leads to the belief that an extended development to include a larger enrollment would be worth while. Every means possible should be provided to familiarize workers with the opportunities they may command, and to break down their traditional diffidence toward school routine.

It is recommended that Evening Trade Extension work be actively promoted by the schools and that a supervisor be assigned to the important task of making necessary contacts with industry, organizations and individual workers.

### RECOMMENDATIONS CONCERNING ELEMENTARY SCHOOLS AND JUNIOR HIGH SCHOOLS

Not enough shop work has been provided for boys in the junior high school. Only two kinds of work, wood shop and electric wiring, are now given to form a prevocational try-out in the trades. There should be at least three more types of shop work added.*

The present electric shop is too crowded, and should be separated from the wood shop which occupies one end of the room.

This shop expansion could be housed in an adjacent building built after the factory plan of construction.

The six-hour day is strongly recommended for adoption in the junior high schools. A wider range of opportunity would thereby be made possible. Vocational courses of the type approved in the State Plan for Vocational Education require a full thirty-hour week, and the

* See Addenda.

establishment of the six-hour day for both junior and senior high schools would make it possible for them to offer courses in this modern form of industrial education with a minimum of friction in the class schedules of the schools.

### RECOMMENDATIONS CONCERNING INDUSTRIAL ARTS EDUCATION IN THE ELEMENTARY SCHOOLS

It is highly desirable to provide opportunities for industrial arts education in the elementary grades and in the junior high school. The Board of Education has evidently recognized this and has made broader use of its shop equipment by the introduction of the three periods per day plan which is discussed elsewhere in this report. The Board of Education is also to be complimented on the work now under way looking toward the expansion of the junior high school program. Shop facilities should be an integral part of such schools. The dominant aim of this shop instruction should be to present typical trade and industrial experiences in the thinking through, and working out of which the pupils may have a maximum opportunity for self-discovery and exploration, preparatory to their selecting a vocation later on.

The primary purpose of industrial arts instruction is not to "teach the use of tools" nor to "develop accuracy of eye and hand." To teach the use of tools is a means to an end, but not the objective to be sought. Quite as much attention needs to be given to the thought content of shop work. It may be made to serve as a means of vitalizing and energizing the whole school program.* Citizenship, the coöperative and the problem-solving attitude may be developed through industrial arts activities much more easily than through certain other subjects of the curriculum. In teaching the industrial arts, attention needs to be given to developing in the pupils an appreciative knowledge of materials, tools, processes, and products that are significant to present day thought and action. Entirely aside from pre-vocational and vocational values, such instruction is valuable in that it facilitates understanding of the world's work and is conducive to intelligent thinking relative to those who do productive work in trades and industries.

### RECOMMENDATIONS CONCERNING VOCATIONAL INDUSTRIAL EDUCATION IN THE JUNIOR HIGH SCHOOL

Although pupils fourteen years of age may take up vocational industrial education, it is desirable that boys be sixteen years of age, and that they shall have completed at least the eighth grade before taking up trade and industrial education of a kind that meets the requirements of the Smith-Hughes Act. It is nevertheless true that there are in the seventh

* See Addenda.

and eighth grades pupils who ought to be admitted to industrial classes. Such entrance should be only after careful study has been given to each such applicant by the vocational counselor. Continuance in industrial classes on the part of such pupils should be contingent upon their making satisfactory progress in the work.

The type of instruction given should reflect the nature of the work undertaken by leading industries of the city, in so far as it offers a practical teaching content.

### RECOMMENDATIONS CONCERNING SUB-NORMAL PUPILS

No one should be permitted to enroll in the industrial course who is not mentally and physically fit. This does not mean that a person who has lost a limb cannot succeed in skilled industrial pursuits, but it does mean that much caution needs to be exercised to see that such persons receive instruction along lines in which their special handicap is not a limiting factor.

Occasionally persons having but a superficial knowledge of the requirements in trade and industries assume that almost anybody can become a mechanic. With this thought in mind they try to make vocational classes the dumping ground for sub-normal pupils. It has been proved clearly that boys and girls who are "problems" in the conventional school work usually remain "problems" in vocational work. There are exceptions to be sure, but it should be clearly recognized that no amount of instruction can make up for actual lack of native capacity. In justice to sub-normal pupils, and in fairness to others, it is no more than right that sub-normal pupils be excluded from vocational industrial classes. Such pupils should be taken care of in classes providing especially for them. Employers will not knowingly hire a person for skilled work who is in any way below normal mentally. They cannot afford to. They are bidding for the most capable young people they can attract because they are seeking "timber" from which to draw their future foremen and managers.

## ADDENDA

1. During the school year 1921–22 four junior high schools were operated in which a variety of shops were introduced. "The variety of shops is planned to lay foundations for vocational choice."

2. Under date of February 6, 1922, it was reported that "committees are at work unifying high school courses. Constructive drawing was placed under the direction of the Division of Practical Arts and Vocational Education in June, 1921. The work is in process of readjustment."

3. The molding shop has since been equipped for electrical construction and plumbing, though the new equipment is not yet used by day classes.

4. "Molding and electrical shop now two separate rooms. The recommendations in the second paragraph under this heading have been fully accomplished."

5. "Carpentry shop burned out in January, 1922, is being refurnished with new equipment."

6. "Drawing tables damaged by fire in January, 1922, are being replaced by modern equipment."

7. General metal working shops have been provided in the junior high schools for the school year 1921–22.

8. It was recently reported that "committees are now at work developing thought content for shop work."

9. An especially good self-analysis form has since been developed.

# CHAPTER II

## HOME ECONOMICS EDUCATION

**Introduction.—Basis on which Survey was Made.** The report of the committee appointed to make a study of home economics education in the public schools of the city of Philadelphia is based upon information gathered from the following sources:

First, personal conferences with the Director of Practical Arts and Vocational Education, the Supervisor of Domestic Science, the Supervisor of Domestic Art, the Principals of Schools, the Heads of Departments and Teachers of Home Economics;

Second, inspection and study of plant and equipment in 24 elementary schools selected at random, in the junior high school, and in the six high schools in which instruction in home economics is offered;

Third, careful study of information, statistics, reports, curriculums, courses of study, lists of equipment, lists of text and reference books, floor plans and all other material furnished by the supervisors, principals, department heads and teachers;

Fourth, observation of instruction in representative centers.

**Local Terminology.** In the elementary schools, junior high school, and continuation schools, the terms "domestic science" or "cooking," and "domestic art" or "sewing," are used. The terms "cooking" and "sewing" are used interchangeably with "domestic science" and "domestic art," respectively. The terms "cooking," "sewing," "dressmaking," and "millinery" are used in speaking of the work offered in evening schools. The term "home economics" is used when speaking of the work offered in the various high schools. In making this report local terminology is used. The term "home economics education" is also used by the committee as an inclusive term to refer to all types of work offered.

**Kind and Purpose of Survey.** The committee has centered its efforts in making a general survey in which the aims and purposes were to secure definite information concerning the status of the work in home economics education now being offered in the public schools of the city of Philadelphia, and to present these findings in a report, in order that certain specific needs may be defined, recommendations made, and a workable program organized to meet the needs of the present situation.

**Administration of Home Economics Education.—Present Organization.** The work in home economics education offered in the public schools is under the Director of Practical Arts and Vocational Education. Responsible to the above mentioned director are two supervisors, one a supervisor of domestic science, the other a supervisor of domestic art.

**Scope of Supervision.** Each supervisor is charged with the responsibility of supervising the work in her respective field in the elementary schools, the junior high school, continuation schools and evening schools. There is no one who has specialized in home economics education supervising the work that is offered in the two practice schools that are maintained in connection with the normal school, nor of the home economics work offered in the high schools of the city.

**Desirability of Changing Present Plan.** Since there is no one person who is a specialist in home economics, directly responsible for the development of this work in the secondary schools, and in the articulation of the work of the secondary schools with that of the elementary schools, there has never been worked out for the city school system a program of home economics education. Due to the efforts and interests of the home economics supervisors and teachers there has been some coöperation between the high schools and the elementary schools. These efforts are worthy of commendation, but little can be done until a director who is a specialist in home economics education is made responsible for developing a comprehensive program for the city as a whole. The existing plan of organization is not only wasteful but it is inefficient and wrong in principle.

**Schools Offering Work.—Elementary Schools.** Domestic art is required of girls in the fifth, sixth, seventh, and eighth grades of the elementary public schools. In some of the colored schools of the city, it is begun in the fourth grade.

Domestic science is a required subject for girls in the seventh and eighth grades. In some of the colored schools, girls in the fifth and sixth grades are enrolled for the work.

**Junior High School.** There is but one junior high school in the city. Four semesters of work in domestic science and four semesters of domestic art are required of all girls in the school.*

**High Schools.** Instruction in home economics is offered in a total of six high schools in the city: Frankford, Germantown, Kensington, South Philadelphia for Girls, West Philadelphia for Girls, and William Penn.

* See Addenda.

The Philadelphia High School for Girls is the only girls' high school in the city in which no work is offered.

**Continuation Schools.** See report on Continuation Schools.

**Evening Schools.** Classes in cooking are offered in the following school buildings: Frankford, West Philadelphia, William Penn, Durham (colored).

Classes in dressmaking and millinery are offered in the following: Frankford, Northeast, South Philadelphia, West Philadelphia, William Penn, and the Philadelphia Trade School for Girls.

Classes in dressmaking are offered in the following: Durham (colored), Martin, Meade, Southwark.

**Supervision.—Program of Work of Supervisors.** No definite schedule of work is set up for the two supervisors. Each plans for the use of her own time and makes a monthly report on a form provided for this purpose. This report, which is sent to the Director of Practical Arts and Vocational Education for tabulation, provides for a monthly record of the schools visited, the time spent in visiting schools, in meetings, in conferences, and in the office.

Each supervisor aims to make from one to three visits to each teacher per term and to give special help and attention to new or weak teachers who may need help in special lines. Frequently the supervisors give this help by actually teaching a lesson or by giving a demonstration, a procedure which, when skillfully conducted, is of great help to teachers of limited training and experience.

Each supervisor is actively interested in the welfare of her work. Three general conferences a year are held by each supervisor with her own group of elementary school teachers where problems of interest to the entire group are discussed. Teachers are encouraged by the supervisor to offer criticisms and suggestions as to the course of study or other matters of general interest. The reactions of many of the teachers would indicate that these conferences are very stimulating.

Special conferences are held with the teachers of continuation schools, evening schools, and special classes whenever these conferences seem to be needed.

Although official working hours are from nine o'clock in the morning until four o'clock in the afternoon, it is seldom that either supervisor leaves her office at that time. Definite office hours of each are from nine to twelve on Saturday mornings. Teachers take advantage of these office hours, which are for the purpose of providing an opportunity for individual conferences, to talk over special problems on which they need help. It was felt by the survey committee that the teachers are at all

times encouraged to come and talk over their problems; and that they receive help in solving these problems.

**Clerical Duties of Supervisors.** In addition to regular supervisory duties and conferences with teachers, each supervisor is responsible for seeing that each of her teachers is supplied with materials, report forms, etc. A form is sent that lists staple supplies for cooking and sewing classes which may be obtained from the store room.

Another form which is placed in the hands of each teacher is a copy of the list of small equipment that was made out for the school at the close of the previous school year. The incoming teacher checks the utensils and equipment with the list that is sent her and returns it to the office of her supervisor, who in turn checks it.

Forms for recording weekly and daily schedules of pupils and teachers are also sent to each teacher, filled out by her, and returned to the supervisor for checking.

In order that the Supervisor of Domestic Science may keep herself informed as to the status of the work in the various centers offering instruction in domestic science, each teacher makes out a monthly report and sends it to the Supervisor of Domestic Science, who checks up the attendance, the foods prepared, and the work of the classes. Because of the exceedingly large number of domestic art teachers and centers it has been found wholly impossible for the Supervisor of Domestic Art to look over monthly reports from the teachers. A term report only is required, and includes: types of lessons presented, the dates the lessons are presented, the enrollment of pupils per month, the grades in which the pupils are enrolled as well as a summary of the work of the term, the names of the pupils listed and their term work and term mark. Provision is also made for listing the names and number of the articles completed in sewing classes under the direction of the teacher.

**Powers of Supervisors Limited.** Up to the middle of the school year 1920–21 each supervisor was responsible for equipping the cooking and the sewing laboratories. During the month of January, 1921, the responsibility for equipping these rooms was placed largely in the hands of each individual principal. It was also decided at that time that all future conferences relative thereto will be with the District Superintendent and the Director of Practical Arts and Vocational Education. It is no longer within the power of the supervisors to approve of the equipment for the laboratories or to make recommendations as to their being equipped unless called upon to do so. It was also decided that the supervisors are no longer to have direct contact with the directors of continuation schools whose courses they plan and supervise. All direct administration is in the hands of the Director of Practical Arts

and Vocational Education. This is not as it should be. Each supervisor should have direct contact with the principals of all schools supervised by her in order that she may discuss with him all problems pertinent to the development of home economics education.

**Need of More Adequate Supervision.** Some idea may be gained of the number of buildings, teachers, and pupils under the direction of each supervisor by examining the following table:

| Supervisors | Number of Buildings | | | Number of Teachers | | | Number of Pupils | | |
|---|---|---|---|---|---|---|---|---|---|
| | Day | Evening | Total | Day | Evening | Total | Day | Evening | Total |
| 1 Domestic Science... | 52 | 4 | 56 | 64 | 6 | 60 | 15,383 | 194 | 15,577 |
| 1 Domestic Art..... | 184 | 10 | 194 | 98 | 67 | 165 | 43 581 | 2,959 | 46,540 |

Even though each supervisor should spend her entire time in visiting schools, it is clearly evident that she could give relatively little assistance to a teacher in meeting her in her schoolroom only once or twice a term. The supervisors spend a large part of their time in classroom visiting, but in addition to their supervisory duties, the routine office work requires considerable time and attention.

The lack of adequate supervision is recognized by the teachers themselves. Helpful and inspiring leadership which will bring out the best service which teachers can give, is absolutely essential in bettering classroom instruction and in improving teachers in service. With the limited amount of supervision which is now provided for this work, Philadelphia is not securing anything like what it should in the way of desirable results. The entire energies of the supervisors are absorbed largely in routine work, in inspection and reports, leaving no time for studying the educational problems of the day, for making intensive studies of the educational problems of the city, for rating the quality of the work done by the teachers, for giving constructive criticism and help in improving the quality of instruction, for bringing to teachers the experiences and ideals of others that have proved of educational value, and for developing a broad constructive program of this phase of educational work which is a legitimate part of every girl's education.

**Financing Home Economics Education.—Funds for Cooking Classes.** At the opening of the school year the Supervisor of Domestic Science is also responsible for making out a budget providing each teacher of domestic science in the elementary schools, the junior high school, the continuation schools, high schools, evening schools, and normal school with money needed for the daily purchase of perishable

supplies. This is the only official contact which the Supervisor of Domestic Science has with the high school and normal school teachers.

Using the enrollment in the school each specific term as a basis, and allowing approximately 14 cents as the cost per pupil per lesson, and eighteen lessons in each term, an allotment of money for the succeeding term is made to each public school in the city offering instruction in domestic science. When the entire budget is made up, a copy of it is presented directly to the secretary of the school board. A check covering the budget for one month is given by the secretary to the Supervisor of Domestic Science who in turn writes a check to each teacher for her monthly allowance and forwards it to the teacher to cash and use as she needs it. Each teacher is asked to keep an account book with a record of all foods purchased. At the end of the month she makes an itemized statement in triplicate of the exact amount of money she has spent during the month. One of these statements is for her own use. Two are forwarded to the Supervisor of Domestic Science, who checks them, keeps one for her own files and sends the other to the secretary of the school board.

There is on file in the office of the Supervisor of Domestic Science a card for each domestic science center. Space is provided on the card for recording the total enrollment of pupils in domestic science classes, and the apportionment of money for the month and for the term. The Supervisor of Domestic Science keeps a monthly account of the expenditures, receipts, etc., for each school in the city included in the budget. Each month of the year the Supervisor of Domestic Science compares her total balance with the balance in the treasurer's hands or more frequently when requested to by the secretary of the school board. At the end of each term, a report is made by the Supervisor of Domestic Science giving the amount of money actually spent and the number of pupils enrolled for the term.

A study was made of the report made out at the close of the fall term in February, 1921, to see how the actual cost compared with the proposed schedule. Of the 17 elementary schools having a five-hour day, 2 schools only spent more than their allotment; the remaining number spent less. The total amount of money allotted for the term for these 17 schools was $1217.50, the total amount spent was $1138.68. For the 35 elementary schools having a six-hour day the total amount of money allotted for the term was $3082.50; the amount actually spent was $2669.30. Reports similar to the above were made by the Supervisor of Domestic Science for the other schools provided for in the budget. The above studies and reports were used by her as a basis for making out the budget for the following school term.

The Supervisor of Domestic Science has spent much time and

effort in devising the above mentioned plan of financing the daily purchase of perishable materials. Whether or not it is wise to allow the 70 or more teachers of cooking courses to handle the school board's money, the plan in operation is at least flexible enough to enable the teachers to select the materials and the place of purchase. That this plan has not proved to be an expensive one is shown by the fact that the total cost per pupil for the school year 1919–20 is 51 cents in the elementary schools and 71 cents in the high schools. This represents an average cost per pupil per lesson of 14 cents in the elementary schools and 2 cents in the high schools.

**Funds for Sewing Classes.** There is no fund provided for supplying the domestic art teachers with money for the purchase of materials for domestic art classes. Each pupil is expected to bring from home the materials which she needs for the articles and garments which she is to construct for herself. Inasmuch as there are some pupils who cannot afford to purchase materials, it frequently happens that some of the pupils are deprived of the privilege of making some of the articles or garments, or they must make them from materials provided from Red Cross or other association funds. In a few schools the teacher personally provided materials for some of the pupils. Since domestic art is a required subject it would seem that some provision should be made whereby materials would be furnished for those pupils who cannot afford to purchase them.

**Issuing General Supplies and Equipment.** Quantities of staple supplies which are used by domestic science, domestic art, and other home economics classes, are kept in the general store room. Up to the middle of the school year 1920–21 it was the responsibility of each supervisor to make plans for the issuing of these supplies. Since that time the Supervisor of Domestic Science through the Director of Practical Arts and Vocational Education supplies the data for requisitions for the domestic science work or checks it before supplies are furnished. Staple supplies for domestic art are taken care of by requisition presented by a principal to his district superintendent, by whom it is sent to the associate superintendent, and through him is sent to the supply department.

The equipment provided or replaced in rooms used for home economics classes is obtained in a similar manner. The teacher who is responsible for the work in the school makes out a list of the articles to be supplied. A requisition is then made out in the office of the school, on a form which is provided for this purpose. A description of the article, the size, the number and the use to which it is to be put must be included on the report form.

Requisitions for supplies and equipment are sent to the school board twice a year, in February and in June. A duplicate requisition is kept in the office of each school and is checked by the teacher when the materials are delivered.

## HOME ECONOMICS EDUCATION IN THE ELEMENTARY SCHOOLS

**Buildings, Centers and Enrollments.—Domestic Art.** There are 184 elementary school buildings in which domestic art classes are conducted. There are only 8 schools that have grades above the fourth that are not served. Of these 8 schools, 4 are located in outlying districts where the enrollments are small. The pupils in the other 4 buildings, Benson, Claghorn, Kane, Hopkinson, go to centers located nearest their own buildings for work in domestic art.

All but 70 of the girls enrolled in the fifth, sixth, seventh and eighth grades in the elementary schools are receiving instruction in this subject. These 70 girls are in the small schools in the outlying districts and as yet no provision has been made for them to be taken care of either in their own buildings or in buildings where this work is offered. To do the latter would mean providing transportation to the nearest center.

**Domestic Science.** The number of buildings which house seventh and eighth grade classes, including annexes and the junior high school, is 128. Exclusive of the annexes, junior high school, and continuation schools, there are 114 units. Of this number, the pupils in 93 schools are given instruction in domestic science which means that pupils in 21 buildings are receiving no instruction in this subject. These 21 centers represent approximately 1800 pupils who should be given an opportunity to avail themselves of instruction in this important phase of educational work for girls.

The report of the Supervisor of Domestic Science for February, 1921, shows that in 128 buildings the enrollments of the pupils receiving instruction in domestic science was as follows:

| | |
|---|---|
| Seventh and eighth grades | 15,269 |
| Continuation classes | 1,092 |
| Pupils, seventh and eighth grades receiving 2 or 3 terms | 1,062 |
| Pupils, seventh and eighth grades receiving *no* instruction | 1,801 |

If the present proposed building plans for next year are not delayed, it will be possible to take care of approximately 1000 of the 1801 pupils who are receiving no instruction in domestic science. No definite plans have been made to take care of the 1062 girls who at present are receiving only two or three terms of work.

All instruction in domestic science is given in 52 centers. A study of the enrollments in these schools reveals the fact that out of a total of

15,269 girls enrolled for this work, 6880 must go from their own buildings to domestic science centers. Translated in terms of percentage, it means that 45 per cent of all of the girls enrolled in domestic science are in an itinerant group. Immediately we begin to wonder how far these girls have to walk? What kinds of districts must they pass through? Are street cars available? Could these girls afford to pay for street car fares if service were available? How much time is lost by these 6880 girls per week and per year that should be spent in purposeful activity in the classroom?

A further analysis of the table shows that out of the 52 centers equipped for this work 12 centers are located in buildings which house pupils from the first to the sixth grades only. There are, therefore, no pupils enrolled in these 12 buildings in domestic science and the total number of pupils accommodated in these buildings is made up entirely of itinerant groups.

The following schools have no seventh and eighth grades and yet they accommodate large numbers of girls from contributing schools: Newton Annex, McMichael-Rodney, W. S. Pierce, Jackson, Marshall Annex, H. A. Brown, Allison, Walton, Reynold Annex, Madison, Forten, and McKinley.

The total number of girls in each of the eight school districts who must go to a center for instruction in domestic science is as follows:

| School District | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total |
|---|---|---|---|---|---|---|---|---|---|
| Itinerant pupils | 849 | 946 | 197 | 771 | 1403 | 1152 | 862 | 660 | 6880 |

In calculating the time lost by pupils traveling to domestic science centers, it was learned that approximately two-thirds of the total number of itinerant pupils make the transfer at the opening of school, in the morning or in the afternoon, remain until the close of the morning or the afternoon session, and therefore lose no school time. The objections that still remain, however, are the time and energy expended by pupils in traveling, and the fact that this arrangement taxes even the skillful and experienced teachers to utilize the three-hour morning period effectively. For the other one-third of itinerant pupils the loss of school time must also be taken into account. So far as possible schedules are arranged so that part of the time is the time that otherwise would be spent in recess; and so that the time that is actually lost from school time is prorated as between the academic subjects and domestic science. Using recess time for transferring precludes the possibility of using this time for directed physical training or other activity. The seriousness of the above problem is apparent and demands that it be given further

study and analysis. If each of 2300 itinerant pupils were to lose thirty minutes of the school day, a total of 46,000 hours would be lost by the group in one school year.

The study should be begun in districts 5 and 6, where so many girls are in itinerant groups. In district 5, with a total of 1403 girls who must travel to another school for instruction, 777 of this number go to an elementary building in which no seventh and eighth grade pupils are housed. In district 6 where a total of 1152 girls are in the itinerant group 783 go to an elementary school serving itinerant classes only.

Many girls completing the six grades in one of the elementary schools where there is a domestic science center, are assigned to another building for regular seventh and eighth grade work, and must, because of heavy enrollments, congested conditions, or other cause, go to still another building for their work in domestic science instead of being permitted to go back to the building from which they came and with which they are familiar.

It is true that many cities have deemed it the most economical method of procedure to equip centers and have children go from their respective schools for special types of work. The reasons usually given are that duplicating the equipment increases the cost considerably; that there are not enough pupils in the school to occupy the entire time of a teacher. In a city the size of Philadelphia this problem demands careful study. To equip more centers adds to the amount expended for this work. Should this not be weighed, however, against the excessively high number of hours of the school day that girls must lose in walking to and from a center, not to speak of the energy that is expended in changing from building to building that might be directed into purposeful activity in the classroom? A detailed study of this problem should result in definite recommendations to the proper school authorities for taking care of the girls enrolled in domestic science work.*

**Time Allotment.—General Policy.** The length of periods as set up by the Board of Superintendents is one ninety-minute period in the fifth and sixth grades, and one sixty-minute period in the seventh and eighth grades for domestic art. For domestic science, a two-hour period in the seventh and eighth grades was set up.

In checking the time allotment of the individual schools, however, many irregularities were found to obtain. Since the decision relative to the length of periods rests largely with the individual school principal, it is not surprising that a lack of uniformity has resulted.

**Domestic Science.** In 10 of the elementary schools, a period of three hours in the morning and a period of two hours in the afternoon for

* See Addenda.

40 weeks are alloted to domestic science classes. It was found that one of these schools, in order to equalize the time given to each of the two classes, has an alternating schedule. At the end of each 10 weeks, those classes having cooking in the morning change to the afternoon and vice versa. As stated previously, the decision as to the three-hour period in the morning was made in order to have the pupils who come from other schools make the transfer at the opening and the close of the morning session, and thereby lose no school time in transferring.

In the remaining 42 schools the periods allotted to domestic science are two hours in length and provide for morning classes from 8.00 to 10.00, and 10.00 to 12.00, and afternoon classes from 1.30 to 3.30. Here again in checking schedules it was found that a decided lack of uniformity obtains.

Many irregularities exist as to the time of beginning classes in domestic science in the morning. In a few schools it was found that classes do not begin until 8.15, 8.20, or 8.40. Since two classes meet in the morning, each two hours in length, this shortens the noon hour considerably for the teacher who must meet her afternoon classes at 1.30.

In several of these schools it was found that because of the large number of classes to be scheduled, particularly where classes come from as many as four different schools to one concentration center, that the congestion disorganizes the regular course in domestic science and all of the work cannot be given. It was found that in one school some of the sections get only one-half of the year's work. An alternating schedule is used whereby one section comes for 10 weeks then remains away for 10 weeks while another section takes up the work. The same procedure is followed the second term of the year, thus providing a total of 20 weeks for the year's work instead of 40 weeks.

**Domestic Art.** Irregularities similar to those noted for domestic science are also found in scheduling the classes in domestic art. The length of period for fifth grade work is found to vary from fifty-five minutes to two hours in length. The wisdom of keeping any fifth grade girl in a sewing class for two consecutive hours is to be seriously questioned. In some schools the number of pupils is so large that the domestic art teacher meets five classes a day giving one hour to each class.

**Conclusions.** It is the opinion of the survey committee that the wide variation in the time allotted to the various classes of cooking and sewing can not, under present conditions, be the result of careful planning to meet the needs of the groups of girls under consideration. It is brought about in order to schedule the large number of girls enrolled. A few of the principals expressed the opinion that it was better to give

all girls some of the work than to deprive some of them of an opportunity to have this work in cooking and sewing. They also stated that when they had not followed this method of procedure it invariably resulted in many of the mothers making the request that their daughters be permitted to take the work in cooking and sewing. In a few schools, the aim of the schedule committee to meet the needs of specific groups of girls has not been possible of attainment because of the large number of pupils and the lack of adequate facilities. As a result it has been necessary to work out a program for all classes without giving due consideration to the wise disposal of the time of the pupils.

**Teacher Scheduling.—Domestic Art.** A total corps of 94 teachers is provided for this work in the 184 elementary schools and the junior high school. This is an average of approximately two buildings for each teacher. As a matter of fact, however, there is one teacher who is scheduled for 5 buildings, another who is scheduled for 4, 23 who must travel to 3 buildings, 47 who travel to 2 buildings and only 22 teachers who remain in 1 building for their entire school day.

**Plan of Assigning Teachers to Schools.** A schedule is worked out by the Supervisor of Domestic Art assigning one teacher to a school where she can give all or the greater portion of her time during the week. When each of the 94 teachers has been assigned to a building, then comes the tedious task of assigning a second, a third, a fourth, and in one case, a fifth building to a teacher, depending upon how much of the teacher's time remains to be scheduled, how many classes are still to be scheduled, and how schedules can be made to coincide. One can readily see that the Supervisor of Domestic Art must spend a great deal of time in juggling schedules until they coincide, and it not infrequently results in a teacher being assigned to buildings which are widely separated from each other.

**Imperative Need of Adopting New Plan.** Many of the teachers spend almost the entire noon hour in transferring to another building where they are scheduled for classes in the afternoon. Some must transfer in the middle of the morning. Since practically all of the teachers of sewing in supplementary continuation school classes are drawn from the corps of elementary school teachers, an additional trip must be made by many teachers between 2.30 and 3.00 in the afternoon in order to meet the girls in continuation school classes. In some cases still another transfer is made for evening school work.

No one can estimate the amount of time and energy lost, and the effect on the teachers of this time-consuming travel from school to school. The distances which these teachers must travel in changing

from one building to another is found to vary from one block to several miles. The need for careful study and analysis of this problem is evident.*

A few individual schedules will illustrate the conditions under which many teachers are working. During the week Teacher B meets classes in three different buildings. In the Singerly School she has an enrollment of 256 girls whom she meets in regular classrooms. In the Tilghman School a laboratory for domestic art has been provided with a small amount of equipment, and Teacher B meets in this room 227 girls. On Wednesday she goes to the Campbell School where she meets 68 pupils in the morning, in a regular classroom. During the noon hour she transfers to the Singerly School, a distance of approximately 50 blocks. The total number of girls she meets in classes in one week is 551. Of this number 324 receive instruction in sewing in regular classrooms having little or no equipment.

A further example may be cited of a teacher who in the entire week meets 22 different classes, is in the school room 32½ hours, and meets a total of 520 girls.

Not only is there need for careful study as to the matter of assigning teachers to buildings, but the above schedules serve to illustrate the fact that attention should also be directed to the problem of decreasing the number of individual pupils which a domestic art teacher must meet in one week.

There are enrolled in sewing classes 43,581 girls. Since there are 94 teachers provided for this work there is an average of 463 pupils per teacher, an excessively high number. The above schedules, however, reveal the fact that some of the teachers meet more than 500 different pupils in one week. If best results are to be obtained every teacher must know her pupils, and must in addition know something of the home conditions of each pupil enrolled in her classes. To expect that a teacher who meets 500 individual pupils in one week, and meets them but once a week, can become helpfully acquainted with this number of children and their homes, is to expect the impossible. To expect her even to make the necessary adjustment in a school room is expecting too much. And it is beyond comprehension to expect that she can be in the least measure successful in developing in each individual girl in her classes the knowledge, habits, interests, ideals, and appreciations which each girl needs in order to meet her responsibilities as a member of a family group and as a member of society.

The length of time that teachers spend in classroom instruction varies from 4½ to 8 hours a day. The eight-hour day consists of 6 hours of teaching during the regular daily session, and 2 hours of evening

* See Addenda.

school instruction from one to three times a week. Teachers are not required to teach more than 6 hours a day. When working under conditions as described in the preceding pages it would seem to be the better part of wisdom to discourage their spending more than 6 hours a day in classroom instruction.

Irregular and excessively heavy programs in many cases have been brought about by the adjustment which it was necessary to make so as to schedule the regular elementary school teacher for supplementary continuation school classes. The teachers realize the difficulties under which they are working, which are due to excessively large classes, to traveling from building to building, to adjusting themselves to conditions in two, three, perhaps four, different school buildings and many different laboratories and classrooms, to the lack of equipment and the lack of frequent help and inspiration. It is imperative that conditions be improved.

**Scheduling Teachers and Pupils for Domestic Science.** In domestic science there are 50 centers in elementary schools with one full-time teacher for each. There is, therefore, no problem of scheduling teachers to centers. The number of pupils which each domestic science teacher meets in the course of a week, however, does demand study and adjustment. With a total of 54 teachers provided for the 15,384 girls enrolled in domestic science classes, there is an average of 285 pupils per teacher. While this does not approximate the number of pupils that the domestic art teacher meets in a week, it is so large that best results cannot be expected from the teachers giving this instruction.

**Plant and Equipment.—Types of Cookery Units.** The physical plant provided for domestic science in more than half of the 52 centers consists of one room—a cookery laboratory. In approximately one-fourth of the centers there is a store room or a pantry in addition to the laboratory. In two of the centers, there is a cookery laboratory, a separate dining room, and a bedroom. In one center, which was destroyed by fire, there was a laboratory and a separate dining room.

**Location of Cookery Laboratories.** A study of the location of the domestic science units in the buildings, shows that two-thirds of them are located in the basement, 8 are on the first floor, 5 on the second floor, 3 on the third floor, and 1 on the fifth or top floor. A further study shows that there has been no consistent policy carried out in locating the rooms with reference to proper exposure. Practically every point on the compass is represented.

**Inadequate Attention Given to Lighting.** Almost without exception the cookery laboratories located in basements are dark and gloomy in

appearance. In some, where the rooms are in basements below ground level, the rooms are cold and damp, in addition to being dark and cheerless. Many teachers expressed great dissatisfaction as to the location of their laboratories, particularly so if the location is on the north side of the building where no sunlight enters at any time of the day to help to make the workshop cheerful and sanitary for both teachers and pupils.

In a great many cases the windows in the cookery laboratories are in a dirty unsightly condition. The rough glass used catches much dirt and dust from the street. By far the greater number of cookery laboratories have no window shades. This is particularly objectionable in the laboratories which have a southern, eastern, or western exposure, where a glare of light comes through the opaque windows on days when the sun shines. In several schools teachers stated that they have made several unsuccessful attempts to have plain glass substituted in the top sash for the frosted glass so as to let in the direct rays of sunlight when the rooms are not in use—an essential feature in helping to keep a cookery laboratory in a good, sanitary condition.

Not only is there need for better control of the natural lighting system, but the artificial lighting system as well needs attention and remedy. In some of the laboratories absolutely no means of lighting is available. Others, piped for gas or wired for electricity, with light fixtures installed, have no jets or bulbs to make it possible to have artificial light on dark days when light is needed not only to make the room more cheerful and comfortable, but to furnish the necessary light for efficient work on the part of pupils and teachers.

**Failure to Provide Attractive Environment.** In all of the grade schools visited, the cookery laboratories were found to have wood floors. In a few laboratories the floors seemed to be kept in fairly good condition; in others, particularly where the floors are oiled, this is not the case. Each day the floors are swept but the sweeping given to them takes off only the loose dust and leaves the floors dark, stained and soiled in appearance.

Another feature which adds to the unattractive appearance of the cookery laboratories is the dark flat stain on the wood work. The walls in many of the rooms, are streaked with dust. This is due in part to the fact that the rooms are located on dusty streets where street cars are passing at intervals of three or four minutes and sending up clouds of dust. The hot air pipes, the ventilation pipes, and the radiators have caused this dust to be deposited in fan-like paths across the walls. In only a very small number of laboratories visited, did the committee come away with the impression that they had come from a spotless

kitchen where girls are being given an opportunity to form habits of cleanliness, neatness, and order—characteristics so essential to good housekeeping. The impression carried away was that many of the teachers are aiming to develop these characteristics in the girls, but the lessons and discussions do not function because the environment in which these girls are working does not afford fertile ground for such growth and development.

To add to the disagreeable features already cited, it was found in a few cases that the cookery laboratory is located in close proximity to a fan room. During the days when the fans are running full speed, there is a continued roar, above which both teacher and pupils must talk. It is not difficult to imagine the handicap placed on a teacher who is trying to give instruction in a laboratory so located.

**Units of Equipment.** In analyzing the equipment in the laboratories, it was found that in all of the centers, there are fairly standardized units of equipment installed for giving instruction in food preparation, meal service, laundering, and child care. Inasmuch as this equipment in the majority of cases is accommodated in one room, the arrangement and completeness of the equipment is limited to the amount of floor and wall space available in the room. Where an extremely large classroom has been converted into a domestic science laboratory, there is so much unused space that the room assumes a rather barn-like appearance.

**Storage and Locker Space.** In some of the laboratories which do not have a separate store room or pantry adjoining, there are large cabinets placed along the walls of the room and several lockers. It is not a difficult problem to keep a room that is equipped with adequate storage space in a neat and orderly condition.

In the rooms that are not well equipped with lockers and storage space, small utensils and pieces of portable equipment are found piled on top of what few cabinets there are. This gives to the room a more or less untidy appearance, and at the same time gives to the girls an ever-present example of disorderliness, and of poor and inefficient management.

Many of the cupboards and storage spaces have been placed wherever there is available wall space, which of course means that in some cases the cupboards are not conveniently accessible to either pupils or teachers. Inasmuch as the storage spaces are so inconveniently located, it would seem that this in a measure accounts for the fact that such spaces were not infrequently found to be a jumble of supplies, equipment, illustrative material, books, etc. In the majority of centers, student lockers have not been provided. In some of the buildings, cloak

rooms are used for hanging up the bags in which the uniforms of the girls are kept.

**Types of Cookery Tables.** The laboratory tables vary in size from a long narrow table built to accommodate twelve pupils to a compact table built to accommodate two pupils. So far as could be ascertained the tops of the tables are made of unfinished wood. Some of the tables are provided with one drawer for each pupil. By far the larger majority, however, have open shelves thus exposing to the dust the flat utensils placed on them.

In approximately half of the domestic science laboratories the tables are arranged in the shape of an open rectangle with one end entirely open and a small opening in the opposite end. In the Campbell building and in the Reynolds-Gratz building (a school for colored children) each of which has a cookery laboratory, a dining room, and a bedroom, the tables are placed so as to approach the unit kitchen arrangement. This has proved to be a more satisfactory arrangement.

**The Fuel Unit.** In by far the greater number of centers, the arrangement of the fuel unit consists of one gas range and one coal range with a fuel box between them, and all located at one end of the room at some distance from the pupils who work at the opposite end.

The coal ranges are used very little. At the opening of the school year they are used as a basis for giving one or two lessons on the laying of a coal or wood fire. During the remainder of the year they are used for the most part to heat water in the attached boiler, as this is usually the only supply of hot water for the laboratory. In some centers the coal ranges are in need of repair and consequently cannot be used. In other centers it was learned that the ranges smoke to such an extent that it is not possible to use them with any degree of comfort and efficiency.

In most of the laboratories there are 24 individual burners provided for pupils, and these are located at the back of the tables. Wire racks from 7 to 12 inches square form the plates above the gas jets for holding the utensils above the flames. In some laboratories these racks are so rickety that they cannot be used for holding utensils, with the result that the pupil must either hold the utensils over the flames, or she must use a flame at some other pupil's desk. Many of the burners are of the old Bunsen type of fixture and do not make for efficiency in any way. In some of the laboratories the large eight-strand rosette burners are used and give much better satisfaction.

**Ventilation of Cookery Laboratories.** In none of the schools visited is there a hood over the stove or any special ventilation arrangement. This results in the odors from the cooking of foods being carried into

the halls by the accelerated air movement caused by the passing of many pupils in the corridors when classes are changing.

In the cookery laboratory in the Furness School, the ventilation condition is very serious. The laboratory is located in a wing in the basement and has no windows. The only natural light that enters, comes through three skylights which cannot be opened. This is as the original plans were made and as the wing was built. When the ventilation fans are not in use there is no means of ventilating this room. With 24 gas burners going and a fire in the coal range the heat is excessive. At various times some of the pupils, and likewise teacher, have fainted while at work in this room as a result of excessive heat and lack of ventilation.

**Meal Service Unit.** The equipment for meal service, although installed in practically every center, cannot be said to function efficiently in every case. The equipment consists in the main of a dining table, six chairs and a china closet or buffet located in one end of the cookery laboratory. In many cases the unit is so scattered that one can hardly call it a unit, for the china closet is placed at one end of the room, the table at the other, and the chairs scattered throughout the large room. In some centers a table and chairs are provided but no china closet; in others there are a table and china closet but no chairs, the desk stools being used instead. In one laboratory the china closet is at one end of the room and the chairs and table at the other. Instead of using the china closet for storing china it is used as a general storage place for glass jars, crockery, etc. In another center the dining table is kept in the corner and seldom used. In the Campbell School, which has a separate dining room, there is no equipment at all placed in the room.

In none of the centers visited did the committee come away with the feeling that the meal service equipment is being used enough to pay for the cost of installation. The error, however, is not in the fact that the meal service equipment has been provided, but because of the poor arrangement of the equipment for this unit of work.

**Equipment for Instruction in Child Care.** The equipment for child care, consists of a doll, a basket with bedding, a layette, a bath tub, a thermometer, bottles, brushes, etc. Some of the cooking teachers have gained the coöperation of the sewing teacher and outfits have been made by the sewing classes. The interest and enthusiasm among the girls in these schools is much more apparent than in the schools where the outfits are purchased. Very few of the teachers seemed to sense the opportunity that is before them of providing representative layettes that would be suitable for the babies in the various types of homes from which the girls come; of providing suitable projects which could be

practiced at home and discussed in school; or of presenting this phase of work in such a way as to make an "appeal" to the girls in the classes.

**Provision Made for Domestic Art Classes.** If the reader has reached the conclusion that the laboratories for domestic science are not adequately equipped, he will be much more forcibly struck by the inadequacy of plant and equipment provided for domestic art.

The buildings in which domestic art is offered, may be divided into three groups: first, those having a laboratory for all domestic art classes that meet each week; second, those in which there is a laboratory provided for a part of the classes in domestic art and a regular classroom utilized for the remainder of the classes; and, third, those in which there is no laboratory of any kind, and frequently only one-half of this regular classroom is available, for the boys remain in the other half of the room doing "busy work," at the direction of an elementary school teacher.

Out of the total of 184 buildings in which domestic art work is offered only 48 school buildings have a room or rooms which are equipped for this work. Approximately half of the 94 teachers must teach in regular classrooms. The study made of this problem reveals the fact that 27,641 girls are required to take work in domestic art in regular classrooms while only 15,940 are given an opportunity to receive instruction in rooms that are equipped for this purpose. Translated in terms of percentage, it means that more than 63 per cent of all girls enrolled in classes in sewing must do their work in regular classrooms, and less than 37 per cent are provided with equipped rooms.

**Lack of Equipment Deplorable.** In some of the schools in which there are no sewing laboratories, the only equipment provided for the work in sewing consists of a few pairs of shears, thimbles, and such small supplies as tape, buttons, thread, etc. No lockers of any sort are provided and the teacher is obliged to keep what few supplies she has on one or two shelves in a store room along with other school supplies. In other schools of this same group, one or two sewing machines have been purchased, not by the school board, but by the home and school league, or the school itself. These machines are kept in the hall, or the library, or one of the classrooms, and must be moved from room to room as the teacher goes from room to room meeting her classes. It was found that not only are the sewing machines moved from room to room on the same floor, but they are also carried from floor to floor between classes. This operation results many times in the machines getting out of order, and remaining so for several days while waiting for the repair man to put them in working condition again.

This lack of machines, particularly in the schools where classes in

sewing in the seventh and eighth grades are conducted, is deplorable. No real instruction in garment-making can be given when only one sewing machine is provided for a class of 25 or 35 active eighth grade girls. Pupils simply baste their garments together in school and then take them home to stitch them or to have them stitched. In some schools the sewing teacher will not permit the girls to take their work home at night, with the inevitable result that the girls must wait their turn for the machine or make their seams, hems, etc., by hand, a tedious, inefficient, discouraging method of procedure.

In the schools in which there is a regular sewing laboratory provided, the same situation exists with reference to lack of sewing machines. As far as could be ascertained no elementary school in the city was provided with more than four sewing machines, while classes were found to reach as high as thirty-five.

**Tables and Chairs.** Several types of tables or substitutes for tables are found in use. The peripatetic teacher carries with her from one to nine large pieces of plaster board which are placed on the tops of desks and serve as cutting tables on days when articles or garments are to be cut out. In a large number of schools from one to four small folding sewing tables 24 x 36 inches are avialble. One sewing teacher showed her ingenuity by borrowing from the lunch room two long boards which she nailed together and placed on three horses. Portable table tops and horses or trestles are provided in some schools. In only a very small number of schools in the entire city, are there large, well constructed sewing tables equipped with drawers in which small supplies can be kept.

The chairs in general use seem to be an accumulation of odds and ends. In most cases, they are neither comfortable nor suitable to the size of the pupils. The seats in the regular classrooms, which the girls must use while sewing, are anything but restful and comfortable. They are not to be recommended for growing girls who are so likely by nature to slump down in their seats, or sit curled up in a position which, though apparently comfortable, is not conducive to building strong, straight backs and proper chest development.

The number of demonstration tables provided is extremely small. In the regular classroom the sewing teacher must use the desk of the elementary school teacher as a desk and not infrequently as a demonstration table. On the day that the Sharswood School was visited, the window ledge served as a teacher's desk, and supply and demonstration table. The teacher, as a result, stood in front of the windows and the pupils faced the light. The effect of eye strain was evident on the faces of some of the pupils as they squinted at the teacher. The conditions under which instruction in sewing is given in this school are especially

unsatisfactory and inadequate. It would seem that this condition is inexcusable inasmuch as eighteen new rooms were recently added to the building and it would have meant comparatively little additional expense to have made at this time adequate provision for sewing classes.

**Storage Spaces.** Storage spaces for teachers' and pupils' supplies, are most inadequate in the majority of the 184 centers. In a few centers in which there is a regular laboratory equipped for sewing, there are lockers for student supplies and a supply cabinet for the teacher. In many others the cabinet or cupboard space available may be in a store room, a cloakroom or hall. In schools which have no laboratories, from one to three clothes hampers are used for storing pupils' supplies. At the close of the class period each pupil places her work in a cloth bag which she has made and on which she has embroidered her name. These bags are then deposited in the large wicker clothes hamper. This is not only an unsanitary method of procedure, carrying with it the possibility of spreading disease, but it is decidedly bad for other reasons. It is not difficult to imagine the appearance that the work in the bags located at the bottom of the hamper will present when brought forth the following week. One can hardly expect to obtain satisfactory results from pupils who must work week after week on an article or garment that presents such a wrinkled and unsightly appearance.

In some schools rows of hooks in the store rooms furnish a place for hanging sewing bags; while in others shelves in a cupboard, or closet, or general storage room are used. In a few schools cardboard boxes serve as storage space for scissors, thread, needles, tape measures, thimbles, etc.

**General Comment.** Concerning the defects of the rooms in use at the time of the survey, it may be said that the improper placing of these rooms and other faults in their physical conditions are a part of the general lack of accommodation in the public school system on the physical side, shown by the enrollment of 30,000 children on part time. Where such a condition exists, available space was used for such purposes as home economics and mechanic arts instruction, these activities being forced into locations that would otherwise not have been selected, in order to avoid the placing of more children on part-time.

No attempt will be made to discuss further the plant and equipment provided. The illustrations cited and discussed reveal the need of centering attention upon this problem.* The Director of Home Economics should be able to give expert help and assistance to the school architects in making plans for the installing and equipping of all home economics rooms and laboratories, and she should be consulted by them.

* See Addenda.

**Courses of Study.—By Whom Made.** Standardized courses, one in domestic science and one in domestic art, are in operation in the above grades in the elementary schools. The course of study in domestic science was made out by the Supervisor of Domestic Science and a committee of her teachers. A similar method of procedure was followed in making out the course of study in domestic art.

**Length of Course in Domestic Science.** The course of study in domestic science is outlined to cover 2 years of work, or 4 terms of 20 weeks each. There are, however, only 19 lessons outlined for each term, due to the fact that holidays usually break into each term so that classes can meet only 18 or 19 times.

**Aims and Objectives.** As an introduction to the course of study the supervisor and her committee of teachers have set up a few general statements. The aims set up in these statements are not comprehensive enough as objectives for all of the various groups to be reached by courses in domestic science in the seventh and eighth grades. They should be restated in terms that will clearly set forth the part which domestic science should play in developing in each seventh and eighth grade girl the ideals that will make her wish to become a contributing member of a family group and the knowledge and skill that will enable her to do her share in making a comfortable and well managed home.

**Scope of Work Outlined.** In analyzing the course of study in domestic science, it will be found to consist of more than simple lessons in cooking. The course is planned around lessons in food preparation, menu making, meal service, laundering, budget making, house care, household management, home care of sick, and child care. It is evident from the above that the Supervisor of Domestic Science and her committee of teachers have sensed the opportunity before them of building a course of study that is more than a course in cooking,—a well-rounded course, affording opportunity for each girl to gain experience and skill in many of the arts of the household in which she, as a girl, should participate.

**Specific Instructions Should Accompany Outline.** A mimeographed copy of the course of study is placed in the hands of every domestic science teacher. It has been organized with the idea that certain units of work are to be given at the end of the fall term while other units are to be given at the end of the spring term, regardless of whether the student enters the course in the fall or at midyear. No instructions are included to explain how or why this practice is to be followed. This makes necessary a conference of supervisors and teachers at the opening

of each school year. If, for any reason, a new teacher is unable to be present at this conference it means a separate conference of supervisor and teacher to discuss the administration of the course of study. With the great number of demands upon the time of the supervisor, this is not an economical method of procedure. It would be a better plan to have such detailed suggestions included as will make clear to the new teacher how and why the course of study is so organized.

**Work Outlined for Two- and Three-Hour Periods.** The work as outlined for the majority of the periods provides for both discussion and practical work. In some instances these two are related; in others they are wholly unrelated. The outline for the first period sets up for discussion the equipment and care of the kitchen, duties of housekeepers; and for the practical work, building of fire and care of ranges, purpose of fire blanket, rules for use of dampers. The discussion can easily be made to correlate with the practical work which consists of actually lighting the gas range and of making a fire in the coal range.

This is not the case in the choice of the discussion and practical work outlined in many of the lessons. For example, the second lesson opens with a review of the first lesson; the new work is a combination of a laundering lesson and a lesson on table setting and service. The laundry lesson is on hard and soft water, sun and air. The practical work consists, first, of making soap, liquid soda and borax water; second, of table setting and serving; and, third, of washing tea towels and dish cloths. The work on laundering introduced at this point provides an opportunity for learning how to care for the tea towels and dish cloths, an essential part of the work of every period in which the practical work includes the preparation of food. The work on table setting and serving, introduced at this point, will aid each girl in knowing how to set a place for herself at her work table on those days when she prepares food which she will eat in the laboratory. This lesson, however, could be made much richer in content and of more educational value, if, instead of having, so early in the year, a "mock" breakfast or luncheon, the attempt were made to apply the principles concerned when there is a meal to be prepared and served. If given at all at this time it should be made to link up with home practice work and there should be outlined a scheme for encouraging the girls to assume this phase of responsibility in their homes as a part of their share of the work in the home.

**Length of Domestic Art Course.** The course of study in domestic art as outlined embraces 4 years. Each year is divided into 2 semesters of 20 weeks each.

**Aims and Objectives.** As stated in the introduction the purpose of the work in domestic art is "to develop girls mentally as well as

manually and to prepare them to become intelligent, skillful and practical home makers."

In offering this work to girls in the elementary grades the emphasis should be placed largely on their needs as "home daughters" rather than on their needs as "home makers." The trend of the development of all education convinces one that courses of study in home economics as well as those in civics, history, or others, should provide education and training adapted to the natural interests and abilities of the girl of today rather than of the woman of tomorrow, but in doing so should lay the foundation for future education and training for homemaking.

**Scope of Course.** As set up in the foreword, the content of the work in domestic art includes the following divisions: "one, the teaching of fundamental stitches and seams; two, pattern drafting and the use of commercial patterns; three, textiles; four, instruction in the use of the sewing machine; five, garment construction." It is to be observed that the work consists almost entirely of work in sewing and textiles.

The course of study is outlined under four main heads, Constructive Processes, Pattern Drafting, Projects, and Textiles.

**Constructive Processes.** The constructive processes listed for the four grades are those that would be used in the construction, and the repair and upkeep of simple articles and garments.

The methods used for presenting this work, however, should most certainly be changed. Each teacher in the elementary grades is asked to make enough samplers of constructive processes so that each pupil in the class may have one to use as a model. Since the enrollment in many classes reaches 35 in number, it necessitates the making of 35 French seams, 35 flat fell seams, 35 buttonholes, not to mention the many other constructive processes. To provide each one of the 35 pupils with a French seam sample three inches long, one so well made that it could be used as a model by the pupil, would tax a skillful worker to perform the operation in less than thirty minutes. Multiply this amount of time by 94 teachers and it will be found that 47 hours have been spent by the group providing samples of just one constructive process. As a matter of fact, more than this amount of time would be consumed as many of the teachers could not perform the work so quickly. If a similar analysis were to be made so as to determine even the approximate amount of time the teachers spend in making complete sets of the various samplers needed, the result would show an appallingly large number of hours.*

Excellent illustrations graphically showing successive steps in various constructive processes, are to be found in books on sewing and

* See Addenda.

dressmaking. Diagrams, charts, and photographs of a similar nature and other illustrative material should be furnished by the Board of Education and made available to each pupil enrolled for work. Instruction sheets, which will aid each pupil in knowing standard practice methods of making various constructive processes should also be available. With these to supplement demonstration discussion periods, both pupils and teachers will work more efficiently.

**Sampler Work.** Another method of presenting work that is wholly out of keeping with the best thinking in education is that of insisting that pupils shall make samplers of the various constructive processes included in the course of study. For example, each pupil is required to make a miniature sampler apron as a basis for making samples of various constructive processes.*

**Pattern Study.** The patterns used for the making of all articles and garments that are constructed by the pupils in the fifth, sixth, and seventh grades, are drafted. No work with commercial patterns is included in the course until the eighth grade. It would be difficult to find evidence that would justify the teaching of drafting to the exclusion of the study of commercial patterns in the fifth, sixth, or seventh grades. It is a safe assertion to make, that practically every girl, upon leaving school at the end of the fifth, sixth or seventh grade, if she attempts to do anything in the way of constructing her own clothing or the clothing of any member of her family, will seek help and inspiration from the fashion magazines that are on the market. She will find therein a design which at least approximates the one which she has in mind. She will not, in most cases, have either the technical skill, the artistic ability or the time to draft a pattern like the one so interestingly portrayed in the fashion magazine. She will, therefore, purchase the "ready-made" commercial pattern, and courses in garment construction should include work that will help her to use commercial patterns intelligently.

**Projects.** The articles or garments that are constructed are called "projects." It should not be inferred, however, that the basis of organization is the "project method." The word "project" as used in the course of study, is synonomous with the words "article" and "garment." The articles listed should be expanded to include other and more interesting articles and garments that will "in the making" hold forth a strong appeal to the pupils who will make them.

**Making Garments by Hand.** It is not only inefficient and impractical but it is thoroughly bad to use the time of the pupils to make by hand many of the garments included in the lists. With the meager

* See Addenda.

equipment provided in most of the elementary schools and with these garments listed in the required course of study, the teachers of domestic art have no choice but to insist that the garments be made by hand. Some teachers permit the girls to take their work home and stitch it on the "home machines." In other schools teachers insist that no garments are to be taken from the schoolroom, for it invariably results in the mothers doing the stitching for the pupils.

**Need of Revising Course.** With some schools having no machines, with others having one or two provided for classes numbering as high as 35, with the machines that are provided being used almost exclusively by the seventh and eighth grade girls and thus precluding all possibility of their being used by the fifth and sixth grade girls, an adjustment of the course of study is imperative. Only those articles and garments which can be made entirely by hand and completed quickly, should be included in the course of study unless additional machines are provided. Since the amount of time spent by any girl of elementary school age in constructing clothing for herself or the members of her family group is extremely limited; since the majority of the garments that make up her personal wardrobe, however meager it may be, are "ready made" garments; since it frequently happens that the girl herself may have to do some of the actual purchasing of these garments not only for herself but for other members of the family, there is an evident need for incorporating in courses of study in domestic art, lessons on the selection of clothing for the elementary school girl; lessons on the care, repair and remodeling of the wardrobe; on the hygiene of clothing, and other related work.

A course of study which consists almost entirely of work in sewing and textiles cannot be said to be a well-rounded course in those arts of the household that are usually grouped under the heading of domestic art. There is a complete absence of any work in the laundering of clothing, of talks and discussions on the family budget as it relates to clothing problems, or of art in the home, including simple problems in the arranging and furnishing of bedrooms, living rooms, kitchens or other rooms.

The inefficiency of the above methods serves to emphasize the need of extensive modifications to the course of study, and to methods of instruction.

**Differentiation of Courses.** In a city the size of Philadelphia, where there are represented, in all probability, as many types of homes and pupils as there are types of homes and girls in the entire State, the practice of providing a standardized course in domestic science and domestic art to meet the needs of the 60,000 or more girls enrolled for

this work, is to be seriously questioned. How can a standardized course of study meet the needs of the various groups of pupils enrolled? Contrast, for example, some of the girls taking this work in School A with those taking work in School B. In School A the enrollment is 50 per cent colored, and the remainder Russians and Americans. Many of the girls in this school come from slum sections of the city, from homes without standards, from homes of poverty and large families. In School B many of the girls come from homes of fairly well-to-do people, from homes where all that is expected of them is to be healthy and happy, and help to contribute to the happy, social family life. What do the girls from these various schools do in their homes? How many of them spend a part of their time actually performing household tasks? What kinds of tasks do they perform? What kinds of tasks should they perform, and how, in order to have right attitudes toward their present home responsibilities? Do the little girls from poor homes need the same number and the same kinds of lessons in laundering as do the girls who come from homes of people who are well-to-do and send all of the washing to be done outside of the home? Should the girls who come from homes where there are no babies, have the same number and the same kinds of lessons on infant care as the girls who come from families where there may be two or three tiny tots that are the special responsibility of an individual girl in the seventh grade?

With the number of centers each supervisor has under her direction, and the additional routine that each must perform, it is not surprising that a standardized course has been the result. To attempt to supervise the work in 184 centers with 184 different courses in operation would have been to attempt the impossible. Even to expect that one supervisor can successfully supervise 184 different centers which are aiming to carry out a standardized course of study is to expect of the supervisor a superhuman task.

Both courses, when analyzed, have some unusually good features, and both have included work that should be either eliminated or reorganized to meet more adequately the present needs and responsibilities of the individual girls enrolled.

There should be outlined several typical and differentiated courses of study, each adapted to the needs and purposes of various groups of girls and each so organized as to secure for pupils in the various groups such flexibility as is needed to adapt the course to the pupils, who, because of greater or less ability, make rapid or slow progress.

It is becoming increasingly apparent that instruction in the arts of the household, as well as instruction in other school subjects, must contribute to the unfolding and developing of the ideals and appreciations which should become vital forces in the life of each girl and enable

her to become "a worthy member of a family, both contributing to and deriving benefit from that membership."

**Quality of Instruction.—Present Working Conditions Reflected in Work Done.** Realizing that best educational results cannot be secured by teachers who are working under such tremendous difficulties as have been set forth in the preceding pages, it was felt by the survey committee to be unwise at this time to attempt to measure classroom instruction, teaching ability or achievements of pupils. It is of little value to discover weaknesses unless steps can be taken immediately to remedy them. Before satisfactory results can be expected, better working conditions must be provided. The poor environment now provided is bound to be reflected in the attitude of both pupils and teachers and in the work which they are doing.

An effort was made, however, to visit as many of the domestic science and domestic art classes as possible in order to secure a sympathetic appreciation of the quality of work being done. The survey committee observed the interest displayed by the pupils entering the classroom, and the attitude of the teacher as her class assembled; the methods employed by teacher in the conduct of the work for the day and the response elicited from the pupils. By conversing with the teachers at the close of the class period still further information was gained upon which to base a report of the quality of work being done.

**Attitude of Pupils and Teachers.** Many of the teachers are making an earnest effort to make the best of a bad situation, and to do what they can to help pupils in the classroom. They are alert and interested in their work, and their spirit is reflected in the attitude of the pupils and in the type of work which they do. This same spirit of work and helpfulness is not always found. In some schools both pupils and teachers work without joy or inspiration.

This is almost invariably true when rooms are dark, poorly ventilated, and unattractive. It is also true in some of the basement laboratory rooms which are located near the fan rooms where there is a continual roar over which both teachers and pupils must talk. It is not surprising that this usually results in the teacher doing the interpreting and explaining, and telling the pupils what to do instead of regarding the class period as an opportunity for pupils to encounter real problems and struggle with them; to develop initiative and self-reliance; to test out their abilities, capacities, and aptitudes.

In some of the domestic art classes the pupils come into the room, and listlessly hunt through the large clothes hamper for their initialed bag. After aimlessly looking around at each other they saunter back to their places to begin work on a soiled, wrinkled garment which has

been in the process of construction for some time. The teacher goes from pupil to pupil showing each how to proceed.

**Pupil Participation in Classroom Activities.** It was felt that the general tendency of the teachers is to do too much talking and directing; the pupils prepare a finished product, following in so far as possible the directions of the teacher.

In some of the domestic science classes the teacher reads the recipe which she has placed on the board, explains it, tells the pupils what they are to do, and starts them to work. She then walks around the room from one pupil to another, and helps them to prepare food, according to the directions which she has given them. Unfortunately, too many times the chief aim of the teacher seems to be to help the pupils prepare a finished product, to give them an opportunity to eat what they have prepared, making sure that there is time for them to wash the dishes and clean up the laboratory so as to be out of the room by the time the next class convenes.

As to plans for making use of the time of each individual class period, some teachers plan definitely to devote part of each class period to a discussion of the work for the day. Some stated that at various times throughout the year they give talks and demonstrations to the pupils. Very few of the teachers ever call upon their pupils to give talks or demonstrations to the other members of the class, or to help her in planning the work for the period. There is almost a complete absence of purposeful activity by the pupils in some of the classes.

Little or no opportunity is provided to develop power to think independently, to make choices and to explore individual capacities. An attempt to develop pupil initiative is made by some teachers by encouraging pupils to choose the patterns, materials, and trimmings for garments, and to help in planning menus for the meals to be served in the laboratory. In some schools pupils are not even given an opportunity to exercise this much initiative. They are told what to do and how to do it. In purchasing materials many of the mothers insist upon doing this, and the child's part is to bring the materials to school.

A few of the teachers have realized their opportunity and their responsibility in helping students to develop standards of judging the quality of their finished products. During the period the teacher frequently takes occasion to ask the members of the class to observe an individual pupil who, perhaps, is working efficiently and well.

**Coöperation with Lunch Rooms.** In a few of the elementary school buildings lunch rooms are provided. Very few of the domestic science teachers are coöperating in any way with the lunch rooms, or utilizing them in disposing of finished products. Instead of having pupils work

with fractional recipes preparing foods to be served to themselves, it would be far more worth while to frequently requisition supplies from the lunch room, have the pupils prepare the foods in family-size proportions, and turn them back to the lunch room to be sold.

**Application of Instruction to Daily Living.** Little opportunity is being provided by many of the teachers for the pupils to apply the instruction they receive in home economics education to their daily living. Still other teachers encourage the pupils to plan meals at home and to bring the menus to school for comment and discussion; others encourage the pupils to prepare at home the foods which they have prepared in the schoolroom. At the opening of the class period, some teachers ask their pupils to respond to roll call by enumerating the home duties they have performed since the meeting of the class the previous week. From the way in which some of the pupils responded, and from the expression of interest on their faces, there was convincing evidence of their pleasure in participating in these home activities. From the number of duties reported by some of the pupils, and from their manner of reporting them, it might easily be inferred that the performance was a product of the pupil's imagination. No attempt is made to check the duties reported.

**School and Community Activities.** In a few instances teachers have interested their pupils in school and community activities. Curtains are mended, articles are made for the teacher's room, towels are made for domestic science classes, and costumes for pageants are constructed. Candy and food sales have been conducted. Pupils have in some cases been encouraged to bring food products from home, to be canned or prepared in the school kitchen and taken home, and to bring materials for articles which are to be made in sewing classes for members of the home family.

Some of the teachers have taken steps to enlist the coöperation of the mothers by bringing the work of the school to their attention, by inviting them to exhibits, teas, candy sales, pageants of other school activities. The exhibits are attractive and cover the work given in the various classes. The students are at home to the mothers and an effort is made to have the mothers see how the work may be carried over into the home.

The teachers as a whole have made almost no attempt to use the wonderful opportunities that present themselves for pupils to gain an appreciation of the industrial activities in the communities surrounding the schools. Very few of the teachers have ever taken any of their pupils to visit the market, bakeries, stores, cafeterias, food industries, nutritional clinics or other places of educational interest. In some centers

there are textile mills, lace curtain factories, garment factories, carpet factories; yet no field trips have been made to them.

**Use of Text and Reference Books.** No textbooks or lesson leaflets of any kind are used in the classes in domestic art. The supervisor of domestic art has compiled a list of reference books for her teachers, which they are at liberty to requisition from the store room. Some of the teachers state that they have made several requisitions for these books but that no attention has been paid to their requests. The books on the list are those written for teachers and for pupils in secondary schools. The list includes no books which are suitable for classroom use in the elementary grade classes.

Instruction sheets, worked out in detail by the supervisor and a committee of teachers, should be supplied to the teacher in mimeographed or printed form and distributed to each pupil. The sheets should place before the pupils general instructions as to fundamentals in the technique, skills and efficiency in sewing. They should be so written as to make a strong appeal to each girl and thereby aid the teacher materially in inculcating right habits. It would seem highly desirable to have standard practice instruction sheets of many different kinds sent out to the teachers from time to time.

No textbooks are used for the course in domestic science. Reference books are provided in many of the schools. Printed leaflets are provided by the school board. These are in the form of separate leaflets and a set is provided for each pupil who must pay for having them bound or use them as separate leaflets. They contain recipes with accompanying working directions or methods of preparing certain foods. They also include colored meat charts, processes or methods of cleaning, classes of foods, study of fuels, etc. They cover a comparatively wide range of subjects but do not contain as much up-to-date subject matter as they should. However, with the limited amount of time that the supervisor has to devote to constructive problems, it is not surprising that they have not been made to embody much more material. The leaflets are in the nature of a textbook. Assignments are made and the pupils recite on the subject matter.

## HOME ECONOMICS EDUCATION IN THE JUNIOR HIGH SCHOOL

**Organization and Administration.** In the Holmes Junior High School there are a department of domestic science and a department of domestic art. One of the cookery teachers has been appointed chairman of the domestic science department, and a sewing teacher of the domestic art department. This arrangement is due to the fact that the work in domestic science is under the direction of the Supervisor of Domestic

Science, while the work in domestic art is under the direction of the Supervisor of Domestic Art. This is not good organization. The departments should be combined into a department of home economics and there should be appointed a head of the department.

**Time Allotment.** All girls in the junior high school are required to enroll for courses as follows:

*Domestic Science*

| | | | |
|---|---|---|---|
| Seventh grade | ½ year | first term | three 45-minute periods a week |
| Eighth grade | 1 year | first term | one 120-minute period a week |
| | | second term | three 45-minute periods a week |
| Ninth grade | ½ year | first term | three 45-minute periods a week |

*Domestic Art*

| | | | |
|---|---|---|---|
| Seventh grade | ½ year | second term | one 90-minute period a week |
| Eighth grade | 1 year | both terms | one 90-minute period a week |
| Ninth grade | ½ year | second term | one 90-minute period a week |

A careful study should be made of the amount of time allotted to domestic science and domestic art as compared to the amount spent on other educational subjects. It is questionable whether the above amount of time in home economics should be required of all girls in the junior high school. The amount of time required of all should be proportionately the same for all three years. In addition, unit courses in home economics should be offered for specific groups of girls who wish to take more than that required of all.

**Plant and Equipment.—General Comments.** It is gratifying to note that the equipment installed in the junior high school furnishes a much better example of how home economics rooms should be equipped than do the rooms provided in most of the elementary school buildings. However, there are some points on which attention should be directed in order that better working conditions will be provided for both teachers and pupils.

**Domestic Science.** Excellent work tables are provided for the pupils. The modified unit-kitchen arrangement of a work table, sink, and gas range for a group of four pupils is also excellent. The amount of storage space provided, however, is most inadequate, making necessary the placing of much small equipment on the pupils' desks and on the window sills. As a consequence, the rooms have a cluttered, disorderly appearance. The untidiness of the room is accentuated by the dirty, unsightly condition of the walls.

The two cookery laboratories are located in the basement. One of these rooms is so very dark as to make necessary the use of artificial

light at all times, and the amount of artificial light provided is most inadequate. Four small fixtures are located on the ceiling of this room.

If home economics education is to play its part in awakening in the minds and hearts of the girls the ideals and the appreciations that will enable each to become "a worthy member of a family, both contributing to and deriving benefits from that membership," then good working conditions which approximate good home conditions must be provided. It is certain that this aim will never be accomplished in schools where the home economics laboratories are located in dark basements, with poor ventilation, and where the working conditions provided are anything but conducive to the establishing of good habits and to the developing of standards in the girls who will become future home-makers.

**Domestic Art.** The two rooms provided for this work are located on the first floor. They are light and are fairly well equipped. Comfortable chairs and satisfactory work tables are provided. Six machines are installed in each room. Since the room is equipped for 24 students, there is 1 machine for each group of 4—the number generally accepted as the maximum number of pupils that should be assigned to a machine. There are, unfortunately, 4 sections scheduled in which there are 25, 26, and 28 girls enrolled. Lockers for supplies are provided, but one locker must accommodate 3 pupils.

Ample provision has not been made for space in the laboratory or in a separate room for the pupils to use when fitting garments. The regular cloakrooms which are located near the domestic art laboratories are used for this purpose. No mirror, platform or other equipment has been provided, although in the list of equipment to be supplied to the junior high school that was made out by the Supervisor of Domestic Art in June, 1917, a fitting platform was included, with the suggestion that it be made in the shop in the fall.

An ironing board is provided for each laboratory, but no socket has been installed in which to connect the electric iron. The teachers stated that they sent the pupils to the basement when a hot iron was needed. This arrangement is inexcusable, and some provision should be made immediately to make possible the use of this piece of equipment, whenever it is needed.

**Courses of Study.—Organization of Domestic Science Course.** The course of study which is used as a basis for the work offered during the first term of the seventh grade, and the first term of the eighth grade in the junior high school is the two-year course which was outlined for the seventh and eighth grades of the elementary schools. Copies of this course of study are given each year to the chairman of the domestic science department. The Supervisor of Domestic Science then meets

with the three teachers in the domestic science department to discuss the changes which should be made to modify the course to suit the conditions obtaining in this school. No specific outline, however, is set up of the work to be covered. Selections are made from the elementary course of study, and as much of this two-year course is included as it is possible to complete in the two terms in which this course in "Fundamental Principles of Cookery" is offered. The elementary school lesson leaflets, spoken of previously, are also used as a basis for the cookery course.

**Serving Lunches to Teachers.** During the second term of the eighth grade and the first term of the ninth grade, the work is solely the preparation and serving of lunches, cafeteria style, to the teachers of the school (approximately 45 in number), then washing the dishes and cleaning the school kitchen and the teachers' dining room. There are many objectionable features in the way in which the work is carried out. The chief aim of the work seems to be "to serve lunch to the teachers" and "to teach cleanliness." There is a great amount of routine work that is repeated each day by both teachers and pupils. During the preparation of foods, the thought on which both teachers and pupils must concentrate is, to produce a salable product at the end of a given time. The pupils and teachers work very hard. The teachers manage the business side of the lunch themselves. They are the cashiers; they handle the money, keep the accounts, pay the bills, and direct the work of the girls. The money is not banked, but is used from time to time to purchase the foods that are to be prepared on the succeeding day or days. The "teachers' lunch" course is financed entirely by the cash coming in from the sales of lunches.

**Preparation of Meals in School Kitchen.** It has been successfully demonstrated in many schools throughout the country that the preparation of meals for "family groups" can make the work in cookery classes much more valuable and interesting to the pupils than the preparation of foods in small quantities to be eaten by the pupils themselves. The preparation of meals in the school kitchen offers excellent opportunities for becoming a vitalizing factor in cookery classes, but the pupils must work under conditions that approximate home conditions. The work must be carefully analyzed and planned so that it is broken up into a series of different projects embracing the business management, and the purchase, preparation and serving of foods. A scheme of work must be put in operation which will enable each pupil to gain new experiences and to acquire proficiency and skill by electing each project. The "meal project" should be used as a means for gaining a variety of experiences of real educational value; and it should become a means of utilizing the products of cookery classes rather than an enterprise which subordinates

all factors to the preparation of a finished product—namely, a meal. This problem should be given careful consideration by the Director of Home Economics and the teachers of cookery courses in order that it may contribute more fully to educational ends.

**Organization of Domestic Art Course.** With the elementary school course of study as a basis, an "Outline on Domestic Art for the Junior High School" was worked out.

The work for each of the four semesters is outlined under four main headings: Theory, Projects, Related Interests, and Discussions. The choice of terms is not good; neither is the organization of the material listed under each heading. For example, there is no evident reason why the work with linen should be broken up and listed under three headings. Neither is there any reason why it could not all be included under "Discussions." Many of the topics listed under the other three headings might very well be listed under discussions, as there should be lively discussions centering around them in order that girls may be better able to meet their home responsibilities.

**Content of Domestic Art Course.** Although the organization of the course of study may be criticised adversely, there is very much that might be said in favorable comment of the scope of the work included in textile and clothing problems. In each of the four semesters there is work included designed to develop in each girl ability to judge of values in purchasing materials, an appreciation of the suitability of various materials for particular garments, of the appropriateness of various articles of clothing to various purposes and occasions, of style and design of clothing, of personal appearance, of care of clothing, of a study of the budget and other problems. It is not, however, the complement of the course in domestic science; the two together do not form a well-rounded course in home economics.

**Fashion Show or Clothing Climax.** At the end of each term, school activities, or climaxes, are put on by each department instead of graduation exercises. The public is invited. This program of school activities has served to awaken lively interest and enthusiasm not only among the pupils, but also among the parents.

The domestic art teachers are called upon to conduct the clothing climaxes, or "fashion shows," which are made a big feature of the school work. Much time is spent during regular school hours in preparation for the fashion show. Organdie dresses rather elaborate in design, made of all colors and with simple, attractive hats to match, are made by the ninth grade girls. The girls in the lower grades have costumes which are less elaborate. Much time is also spent by the domestic art teachers

in helping the pupils practice "Delsarte" exercise and esthetic posing to train them for the scenes and tableaux.

Unfortunately the teachers have such heavy teaching schedules and large classes that when called upon to conduct school activities, they feel that it does not leave sufficient time to plan for their daily work. It is not surprising that the school activities seem like "extra" or "outside" activities rather than a vehicle for developing in their pupils, initiative, right attitudes, a spirit of service to the school, a sense of collective responsibility for the success of the project. With a lighter teaching load and with "school activities" made a part of the school day for teachers, the attitude toward these activities will be better.

**Comprehensive Home Economics Course Needed.** The immediate need is the formulation of comprehensive and well-rounded unit courses of study in home economics, for each year of work offered in the junior high school. Instead of having the girls in the seventh grade enroll for one semester of domestic science and one semester of domestic art, they should be enrolled for work in home economics. With the organization of a home economics department, and a head of the department in the junior high school, this will be possible.

The basis for outlining each course of study should be an analysis of the activities of the girls enrolled in the various groups. This analysis will undoubtedly reveal the fact that the girls participate, to more or less extent, in all of the arts of the household. The course of study should be so organized as to provide opportunities for each girl "to do better, those things which she, of necessity, must do" in the performance of home duties; to welcome and insist upon home tasks; to develop skill and technique in obtaining results; to gain an appreciation of and a sympathy with the problems involved in the conduct of a well-regulated home. It should be the basis for later training for the vocation of homemaking.

Each year of work should be organized to include simple projects in all phases of home economics. The work should be so planned as to be of definite value to each girl, who, because of necessity, may drop out of school at the end of the year, and who should have an opportunity, therefore, to gain skill and efficiency in those lines of activity in the arts of the household of which she will have constant need in meeting her responsibilities. The work should, at the same time, be so planned as to be of definite value to those girls who continue their schooling.

With each year's work as a basis, the work for the following year should provide an opportunity to elect household arts projects of greater magnitude and helpfulness to each girl in interpreting her daily needs and responsibilities in home, school, and community. Each year of

home economics work should form a broad, rich, common background of experience of thought and action for all girls and women regardless of their future occupations and should provide opportunity for gaining significant experience that will develop in each girl a deeper sense of her responsibility, in coöperation with the members of her class group, for interpreting and keeping true to the ideals of a finer and nobler girlhood and womanhood.

## HOME ECONOMICS EDUCATION IN THE FOUR-YEAR HIGH SCHOOLS

**Scope of Work.** Home economics is offered in 6 of the 7 four-year high schools for girls in Philadelphia. The Philadelphia High School for Girls is the only high school for girls in the city in which no work is offered. In the Germantown, Kensington, South Philadelphia, West Philadelphia, and the William Penn High Schools, there is offered a four-year curriculum in home economics.

Due to small enrollment, the four-year curriculum which was organized and started in the Frankford High School in 1917 was abandoned in 1920. Elective courses only are offered in this school.

Courses in home economics in addition to the four-year curriculum are offered in the Kensington, South Philadelphia, West Philadelphia, and the William Penn High Schools. In the Germantown High School there is no provision whereby girls electing other curriculums may elect a course in home economics.

In the Frankford High School the girls majoring in commercial work are generally scheduled to take some courses in home economics; in the Kensington High School, two years of home economics work is considered part of the regular work of every girl in the commercial curriculum. It is "elective" only in cases of such irregularity of roster that it is impossible to get it in. The girls in the academic curriculum are permitted, and in fact urged, to take it as an elective. In the South Philadelphia High School the commercial groups in their sophomore and junior years are usually scheduled for one-half year of cooking and one-half year of sewing. In the West Philadelphia High School the commercial groups are usually scheduled for sewing in their sophomore year and cooking during their junior year, while the academic groups may elect work during the last two years of their curriculum. All girls in the William Penn High School are required to take at least one year of cooking and one year of sewing.

**Time Allotment.** The four-year high school curriculum for the secondary schools provides for one ninety-minute period a week of drawing during the first year, and one ninety-minute period each of drawing, cooking and sewing the second year. During the third and

fourth years, two ninety-minute periods of drawing, cooking and sewing are required, and during the fourth year one additional ninety-minute period is devoted to the study of textiles.

In the William Penn High School one ninety-minute period a week is devoted to millinery, and one forty-five minute period a day for four days a week is devoted to social science during the senior year.

**Enrollments.** A study of enrollments covering a five-year period reveals the fact that the freshman enrollment for the four-year curriculum decreased in every high school except one. In this one high school there was a gradual increase in the number of freshmen who elected the four-year home economics curriculum. The increase in the enrollment in this school, in all probability, was due largely to the efforts of the principal and the teachers of home economics to recruit incoming freshmen for this work. Teachers of home economics and departmental heads gave definite statements of propaganda that had been carried on both in the elementary and secondary schools to prevent girls from electing home economics work when they entered the secondary schools. It was felt in many cases this propaganda was conducted by those who lacked any understanding and an appreciation of the content and value of courses in home economics.

The mortality in the home economics curriculum in some of the secondary schools is unusually high. In one school out of a group of 79 entering freshmen who elected the home economics curriculum, only 14 seniors completed the curriculum four years later. Many pupils who have dropped out of the home economics work were those who had not freely elected it. They were pupils who had failed in other work and who had been shifted to the home economics curriculum.

One of the main reasons for the small enrollment in the four-year home economics curriculum offered is that it does not lead to a definite something beyond the school. There is no vocational outlet. It does not train specifically for the vocation of home-making and neither does it provide specific instruction of a general educational character for the large numbers of girls who will follow an industrial or commercial pursuit for a period of years before taking up the vocation of home-making.

**Organization and Administration of Home Economics Departments.—Heads of Departments and Teachers.** Inasmuch as there is no program of supervision of the home economics work in the high schools, it is not surprising that there has resulted a wide variation in the organization and administration of this work in the various schools; in the amounts and kinds that are offered; and in the opportunity provided in each school for the development of this phase of educational work.

In the William Penn High School there is a department of art and home economics. The head of this department is trained in home economics education. Working with the head of the department there are three "cooking" teachers, and three "sewing" teachers. In the West Philadelphia High School there is also a head of the department of art and home economics, who has had training in this phase of educational work. Assisting her there are five home economics teachers.

In the South Philadelphia High School there is a department of art and home economics, but the person placed in charge of this department has had training in art education and not in home economics education. There are two home economics teachers.

In the Kensington High School there has not been appointed a head of the home economics department; the principal is directing the work. She has appointed as her assistant, however, the senior art teacher as chairman of the art and home economics groups. Since her appointment as chairman, this teacher has become fully qualified for teaching work in clothing and textiles, by completing the work required in that department in Columbia University. In addition she has completed the work in that institution for and received the diploma for the supervising of home economics. Two home economics teachers assist her in giving the instruction that is offered in this school.

There is no department of home economics in the Germantown High School; nor is there a chairman or head of the home economics work. There are two home economics teachers, one giving instruction in foods and cookery courses, the other in textile and clothing courses. Each is directly responsible to the principal of the school.

The principal has, in coöperation with the teachers of other school subjects, organized various departments. At frequent intervals throughout the year, he calls together his committee of men teachers, one in charge of each department, to make plans for the work of the several departments. Since there is no home economics department, there has been no one appointed to represent the home economics groups of teachers and pupils. This is an unfortunate situation and should be remedied at once by the organization of a department of home economics and the appointment of a head of the department with rank and responsibility commensurate with the other department heads. She should be present in the meetings called by the principal, and should champion the cause of education in the arts of the household for every girl in the high school who desires to enroll.

Since there is no one directly responsible for the development of this phase of educational work, it has not developed as it should. It will be recalled that only the four-year curriculum is offered. The schedule committee feels that it is not possible to schedule girls in other

curriculums for elective courses in home economics, and they will undoubtedly continue to feel so until a capable woman, trained in home economics, has been appointed as head of the department, one who can convince them of the importance of providing a high type of instruction in the arts of the household for all girls, and can work with them in solving the problem of scheduling the girls for this work.

The work in home economics education that is offered in the Frankford High School is all given by one home economics teacher. It should be the business of the Director of Home Economics of the city schools to make a special study of the conditions now obtaining in this high school. They are not conducive to the development of home economics education, and do not give active assistance in seeing to it that the work develops along lines of greater usefulness to the groups of girls enrolled in the high school.

**Plant and Equipment.—Character and Location of Plant Provided.** The general character of the plant and equipment provided for home economics work in the high schools is better, in some respects, than that provided in the elementary schools. This is particularly true of the equipment installed in the clothing laboratories. It is true only in part of the cookery laboratories.

The practice of locating home economics laboratories in the basement has not been confined to the elementary schools. In the West Philadelphia, Kensington, South Philadelphia, and Germantown High Schools, the cookery units are located in the basements, while the clothing laboratories are on the first floor. In the Frankford High School, all of the rooms used for this work are in the basement. Originally two clothing laboratories were located on the first floor, but due to the gradual decrease in the enrollment for courses in home economics, and to the congested conditions existing in the school, these two rooms were taken over for academic classes. One of the two cookery laboratories in the basement is now being used for a clothing laboratory with the portable equipment from the sewing rooms merely placed in the room and the cookery equipment still remaining as it was.

The William Penn High School is the only one having no basement rooms used for this work. It also has the rooms used for home economics work all located on one floor; and it has a practice department. The home economics rooms are on the third floor and the "Letitia Penn Apartment" in the attic.

**Plant not Used.** The plant provided in some of the schools is not being made to serve its greatest usefulness, as some of the rooms remain almost entirely unused. In the Germantown High School, although there are two cookery laboratories, there is only one teacher for this phase

of work. Consequently, one or the other of these laboratories is idle every period of the school day. This same condition exists in the Kensington and the South Philadelphia High Schools.* In the latter school there are also provided two clothing laboratories, but only one full-time teacher for this work. An art teacher, who is assigned one class in elementary dressmaking, meets her class in this second laboratory. During the rest of the week it is used as an office by the head of the art and home economics departments.

**Cookery Units.** In planning the cookery units in all of the high schools but the William Penn, the school architect did not place the dining rooms so as to be conveniently accessible to each cookery laboratory. The dining room in each instance has been placed at the end of the unit instead of between the two cookery laboratories. An unnecessarily large store room is located between the laboratories. This makes it necessary for the girls in the farther laboratory, on any occasion of meal service, to pass through their own laboratory, through the store room, or pantry, and the second cookery laboratory before reaching the dining room. The inefficiency of this method of procedure is apparent, and it is not surprising that it has had its effect on the work offered. In some of the schools, very little opportunity is given to the girls to prepare and serve meals, or to make use of the dining room in gaining an appreciation of the significance of types of social functions, and the part they play in enriching family life.

**Arrangements of Cookery Tables.** Three different plans have been followed in installing pupils' work tables in the 13 cookery laboratories. Eight are of the hollow square arrangement, with an opening only at one end; three are of a modified unit kitchen-arrangement, with gas stoves in the center and with the tables grouped around them; and two, both located in the Kensington High School, have a modified unit-kitchen arrangement which is excellent.

So far as working conditions are concerned, this latter arrangement gives each girl an opportunity to work under conditions that more nearly approximate home conditions than do either of the other arrangements. A work table is provided for each group of four girls; a gas range for each group of four; and a sink for each group of eight. The gas range, with four burners on top and an oven below, provides a "home-size" burner for each girl, and an oven for each group of four. The table top which is of unfinished wood, is similar to that which many of the girls find in their homes. The work tables in these laboratories are similar to those used in the Holmes Junior High School, but when the work tables were constructed for the latter school there was added a

* See Addenda.

small cupboard in the center of the table below the two drawers. This provides space for storing some of the larger utensils which, in the Kensington High School, must be stored in cupboards along the walls of the room.

**Hollow Square Arrangement Poor.** Steps should be taken at once to remedy conditions in the laboratories in which are found the hollow square arrangement with an opening only at one end. There are many outstanding objections to it. The arrangement in no way approximates "home conditions." It more nearly approaches a science laboratory arranged for experimental work to be carried on by each individual pupil. It necessitates too much walking by both pupils and teachers. The pupil who stands at the lower end of the rectangular table must walk from this point, down and around the end of the table and into the open space to the supply table to get all of the food materials which she will need for the work of the day and go back to her place to work. If she is to work that day with a fractional recipe, and prepare food on the individual burner on the desk in front of her, additional walking will not be necessary—that is, if she has remembered to bring from the supply table all of the materials which she will need. But if she is to prepare something which is to be baked in the large range, it will necessitate her walking again to the other end of the laboratory to place her food product in the oven. The inefficiency of this procedure is apparent. Some of the laboratories approximate forty feet in length.

The walking is not entirely confined to the pupils. If a pupil is having difficulty in manipulating her utensils, and a demonstration is necessary, the teacher must walk from the inside of the hollow square (where she has been attempting to observe the work of all pupils), and go around the large work table to the pupil. The distance between the sides of the work tables and the radiators, which extend out from the wall, is only 26 inches in some of the laboratories. When a class is working in these aisles it is almost impossible for the teacher to pass.

These large rectangular tables were installed at considerable expense, but they should be abandoned in favor of more suitable types. The tops of the tables are of white vitrified tile. This is objectionable not only because expensive, but because they are not the type of work-table tops that are found in the rank and file of homes of the girls, and because they are a source of continual expense if they are to be kept in good condition. The pieces of tile loosen and come off,—particularly around the sinks. The tables in many of the cookery laboratories are unsightly in appearance at the present time because the missing pieces of tile have not been replaced. It is almost impossible to keep them in a clean and sanitary condition.

Many other examples of poorly arranged working spaces might be cited. If home economics education is to mean anything in helping each girl to become an efficient and skillful worker, the equipment must be carefully and scientifically arranged so that there will be a saving of time and labor for the worker. She must be able to work with dispatch.

**Clothing Laboratories.** These rooms in the secondary schools are much more adequately equipped for work than are the ones in the elementary schools. In many instances there is too much equipment crowded into one room. The enrollments in some of the classes run high and the mistake has been made of attempting to supply equipment for large classes, instead of making provision for smaller classes and more of them.

**Storage Spaces.** More adequate storage spaces for finished garments, general supplies, and pupils' supplies should be installed. In many laboratories there is a lack of orderliness due to the inadequacy of storage spaces. A small room or screened or curtained space in each clothing laboratory should also be provided for pupils to use when fitting garments.

**Artificial Lighting Important.** Drop lights, placed at the most advantageous places over work tables and machines so that the light will fall over the left shoulders of the workers, should be installed in all laboratories. This is particularly essential in the rooms which are used for dressmaking classes in the evening.

**Types of Sewing Tables.** The sewing tables in the various clothing laboratories are of several different kinds, some with drawers, some without; some with varnished tops, dark-stained tops, and plain unfinished tops. A highly polished top or a stained top may present, at the beginning, a much better appearance, but it does not lend to real service. The tables used for garment construction classes should provide working space on which to cut, and a top which will stand hard usage, for the workers must use shears, pins, rulers and other implements with points or sharp edges.

**Need for Clocks.** Few of the laboratories have clocks. An efficient worker must plan for the wise use of available time. Clocks should be provided for all food and clothing laboratories, and should be placed so they may be of greatest service to pupils and teachers.

**Needed Improvement.** No further attempt will be made to discuss in detail the adequacy or inadequacy of the plant and equipment provided in the high schools. The conditions obtaining emphasize again the need of a skillful and experienced Director of Home Economics in solving the problems attendant to the equipping of home economics

rooms and laboratories. In making a study of these problems, she should call together teachers, heads of departments, and supervisors of home economics. She should secure from them their reaction to the plant and equipment now provided, recommendations as to changes and additions to be made, and suggestions as to general policies to be set up. They together should work with authoritative heads and administrators in their efforts to provide better school buildings which make adequate provision for instruction in home economics education.

**Curriculums and Courses of Study.** Since there has been no one to direct and supervise the home economics offered in the high schools, each school has been a law unto itself in carrying out the four-year home economics curriculum, in offering additional courses, in setting up aims to be accomplished, and in organizing courses of study.

**Curriculum Now in Operation.** An examination of the basic curriculums outlined for the high schools of the city reveals the fact that they have been organized so that the required courses listed under Academic, Commercial, and Home Economics curriculums are all identical for the first year of work.

This arrangement makes it possible for pupils to shift from one curriculum to another at the end of the year, and accordingly there is a great deal of shifting to and from the home economics curriculum. Unfortunately, some of the principals, roster committees, and academic teachers feel that the home economics courses are "easy courses," and there is a tendency on their part to recommend transfers for girls who have not done good work in the courses offered in the academic curriculum. Since there are no courses in home economics in the first year, many of the freshmen girls shift from the curriculum because they do not really have an opportunity to know what it holds forth for them. Some of the girls shift from the home economics curriculum because they see no "money return" or "job" leading from home economics education at the end of the four years of work.

**Aims and Objectives of Courses.** In analyzing the specific courses of study in foods, clothing, millinery, etc., that make up the four-year curriculum, the committee considered first the aims and purposes of these courses as set forth in the written outlines made out by the teachers, and, second, those stated by the teachers themselves.

In the written outlines from two high schools, no aims of any kind are set up. In another school all courses are for "general household arts appreciation." One school sets up aims for part of the foods and clothing courses in the third and fourth years, but merely outlines the content of all courses offered in the sophomore year. The William Penn High School has five pages of mimeographed material giving a general descrip-

tion of the work offered in the "Art and Home Economics" course. The head of the department of home economics has set up a central purpose of the work in foods and cookery each year, and with her teachers has organized the courses with these objectives in view. The general outline of the work in sewing and millinery, however, only lists the "required problems," and does not include specific aims for the various courses or years of work.

**Need of Clearly Defined Aims.** Conferences were held with individual teachers in order to ascertain how clearly the teachers might have in mind the aims and purposes of their courses in home economics. The aims set up for the clothing courses by the teachers in five of the high schools are largely for the acquiring of skill. In only one school out of the five did the teachers list aims that are for the purpose of helping girls solve problems and develop critical judgment. In this school the teachers aim "to help pupils acquire correct judgment about good dressing and see the difference between this and the blind following of the height of fashion," "to select becoming hats," "to lay a foundation for future needs toward making a good home," "to prepare pupils to do their share in the world and in the making of homes." The aims of cookery courses fall under two main heads, "technique" and "informational." Not only should aims and objectives be set up for each course of study but many specific outcomes should also be listed in order that teachers may have these constantly before them, and thereby aim definitely toward specific goals.

**Application of Instruction to Daily Living.** In questioning teachers as to what opportunity is provided for the pupils to apply the instruction which they receive in home economics to their daily living, some of the teachers enumerated specific applications of types of instruction and stated that discussions on "what the pupils have done at home, in the school or in the community" are made a part of the work of each class period. The readiness with which these illustrations were cited was convincing evidence of the sincerity and earnestness of the efforts of the teachers to make the work valuable and helpful to pupils in meeting daily needs. The look of confusion which spread over the faces of a few of the teachers and the hesitancy with which they answered, "no definite provision is made, but this is a natural outgrowth of home economics," indicated fairly conclusively their need of help in listing specific applications which could be made by the pupils. The teachers should have these clearly in mind in developing the work in their various classes.

**Pupil Participation in School and Community Activities.** The large majority of the teachers need help in directing pupil activities. In some schools pupils are used but little in planning the work of the day, and

in directing the work of each other. Some of the teachers, however, appreciate that education, to be of any value, "must be for every person concerned an active, not a passive process," but they need inspiration and active assistance in so shaping situations in the classroom that "purposeful activity" for each pupil will be stimulated.

## GENERAL SUMMARY

Without question, one of the problems confronting school authorities in Philadelphia is the reorganization of the work in home economics education now offered in the elementary and the secondary schools. The place and the purposes of courses in home economics in the various grades should be determined with great care. Many thinking people in educational work are in accord in feeling that some work in home economics education should be required of all girls during the junior high school period; that they need it as one phase of "the social insurance" that they take out in behalf of the nation.

Well-rounded courses should be organized, offering opportunities for education and training in those arts of the household in which all girls and women participate regardless of their future occupations. Two out of every five young women become wage earners at the age of fifteen or sixteen years. If these girls are to become proficient in their vocations, whatever they may be, they will need special vocational training. A certain number of girls will enter higher institutions of education. They must have time to become well prepared for this specialized type of education.

If well-rounded and comprehensive courses in home economics are required of all girls in the seventh, eighth, and ninth grades, or the junior high school period; if courses in home economics are made available to some of the girls in the fifth and sixth grades; if these courses are designed especially to meet the present daily needs of all girls, and at the same time lay a foundation for future vocational education and training, then it would seem wise to utilize the last three grades of the secondary school for "specialization whereby individuals and groups of individuals may become effective in the various vocations and other fields of human endeavor."

For the senior high school many differentiated curriculums should be set up for various groups of students and based upon their specific needs when they leave the secondary school. Some students will take up immediately a vocation of some kind, a still smaller number will continue with their education in a college or other institution. Teachers and pupils should have before them clearly perceived objectives and should put forth consistent efforts toward preparing students for their "fields of human endeavor." As a consequence there should be two

types of home economics education for the senior high school. There should be unit-year, possible unit-semester, courses in home economics definitely organized to meet the needs of specific groups of girls in the academic and commercial curriculums. These courses should be for general education, planned specifically for the development of the individual girl. There should also be intensive courses in home-making for those girls and young women who expect to assume part or full responsibility in the voaction of home-making upon leaving school, or while continuing with their schooling. These courses should be carefully designed to develop skill and efficiency which will enable each individual to render efficient service in the home.

The need is evident for the appointment of a strong and capable director, well trained in home economics education, with wide experience and sound judgment; one who can give expert help and assistance in seeing that adequate plant and equipment are supplied; that working conditions are improved; that courses of study are enriched and, in some cases, redirected and made somewhat more flexible in order more adequately to meet the specific needs of the various groups to be served. More adequate supervision, assistance and inspiration is imperative to help teachers adapt courses of study to meet the needs of the individual groups in the various schools. It is a well recognized fact that "a school system is successful in so far as it brings out the best service that teachers can give; and leadership on the part of a director is a fundamental requirement in securing this most desirable result." It follows that home economics education in the city of Philadelphia will be successful in so far as stimulating leadership and supervision are provided for this work and in so far as the Director of Home Economics and her assistants are given freedom of opportunity commensurate with the responsibility involved in placing this important phase of educational work for girls upon a high level of efficiency.

## RECAPITULATION OF RECOMMENDATIONS

### Organization and Administration of Home Economics Education

1. In addition to two supervisors now provided, a Director of Home Economics, with rank and salary equal to that of the directors of other subjects, should be appointed to unify and develop the program of home economics education in the schools of the city. She should be a graduate of a four-year course in home economics and should have had a well-rounded experience in teaching and in supervising the teaching of others in home economics.

The Director of Home Economics should be given freedom to spend the greater part of the first year in studying the outstanding problems

in the present organization and administration of this phase of educational work in order that she may more adequately develop a comprehensive program in home economics education for the city as a whole.

2. The field of supervision should be extended to include all home economics work in the elementary and secondary schools.

3. The present practice of requiring all girls in the fifth and sixth grades to take sewing should be discontinued; but, in case of overageness, it should be made possible for special groups of girls in these grades to elect courses in home economics designed to meet their specific needs.

4. In general, the home economics program should begin with the seventh grade and be included as a part of the curriculum for all girls in the seventh, eighth and ninth grades.

5. Elective courses in general home economics and in vocational home economics should be made available to all girls in the tenth, eleventh, and twelfth grades.

6. There should be established a department of home economics in every junior and senior high school in the city in which girls are enrolled, and there should be appointed a head of the department with education, training, and experience in home economics to qualify her for this position.

### Plant and Equipment

1. There should be set aside a room or rooms, depending upon the number of pupils to be accommodated, in each building housing seventh, eighth, and ninth grades, and in each senior high school, for instruction in home economics.

2. Home economics laboratories should be located in light, airy, quiet classrooms that can be made cheerful and attractive; and the present practice of locating cookery laboratories in basement rooms should be discontinued. Steps should be taken at once to abandon the rooms now in use which have undesirable locations, and to put in good repair and in a clean and attractive condition all rooms that will continue to be used for instruction in home economics.

3. A minimum of equipment, storage and locker space sufficient for both teacher and pupils should be installed in each home economics room, this minimum to be determined by the Director of Home Economics and installed with her approval.

### Time Allotment

1. A minimum of two ninety-minute periods each week should be alloted to home economics in the seventh, eighth, and ninth grades, and required of all; and that a time allotment should be set up for each additional course offered.

2. In the senior high school, an amount of time which will entitle each girl to one credit should be allotted to each unit-year elective course in general home economics; and a time allotment should be set up for each specific course or curriculum in vocational home economics offered.

**Courses of Study**

1. Instead of offering separate courses of study in domestic science and domestic art, there should be organized well-rounded unit-year courses in general home economics for the seventh, eighth, and ninth grades, which are built around those arts of the household in which all girls and women participate regardless of their future occupations.

2. In the senior high school, unit-year courses in home economics for general education and intensive courses in home economics for vocational education should be organized to meet the specific needs of the groups who elect them.

## ADDENDA

1. Since the period covered by the survey the Board of Public Education has entered into an extensive building program for junior high schools and elementary schools. Three additional junior high schools have been put into operation during the school year 1921–22 and one more will open in the fall of the school year 1922–23. Contracts have been let for three more junior high schools and in the course of the next five or ten years practically the entire seventh and eighth grade population will receive their instruction under junior high school conditions.

2. See 1 above.

3. The three junior high schools which have been opened since the period covered by the survey are amply equipped for covering the entire field of home economics work, and the pupils receive their instruction within the building where they get their other regular work.

While the junior high school building program is being developed, elementary schools are also being erected and, where it is necessary to retain seventh and eighth grades in the organization, ample space is being reserved and properly equipped for home economics work.

4. The development of the building program of junior high schools and of elementary schools will correct to a large extent the itinerancy of teachers in connection with the domestic art work in the seventh and eighth grades.

5. It was stated that the building program above alluded to will make it possible to abandon any of the present domestic science rooms that are unsuitable either in location or in other physical ways.

6. In September, 1921, the Supervisor of Domestic Art recommended the abolishment of the making of samples as a requirement of trial teachers. The recommendation was approved and went into effect that month.

7. This method of presenting the work has been changed during the school year 1921–22. The practice pieces have been eliminated and the constructive processes are now being taught on the article or garment which is being constructed.

8. While at the time the survey was made the Kensington High School was using only one of the two cookery laboratories, both rooms have been in use during the school year 1921–22 and they are now considering the problem of equipping a second clothing laboratory.

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